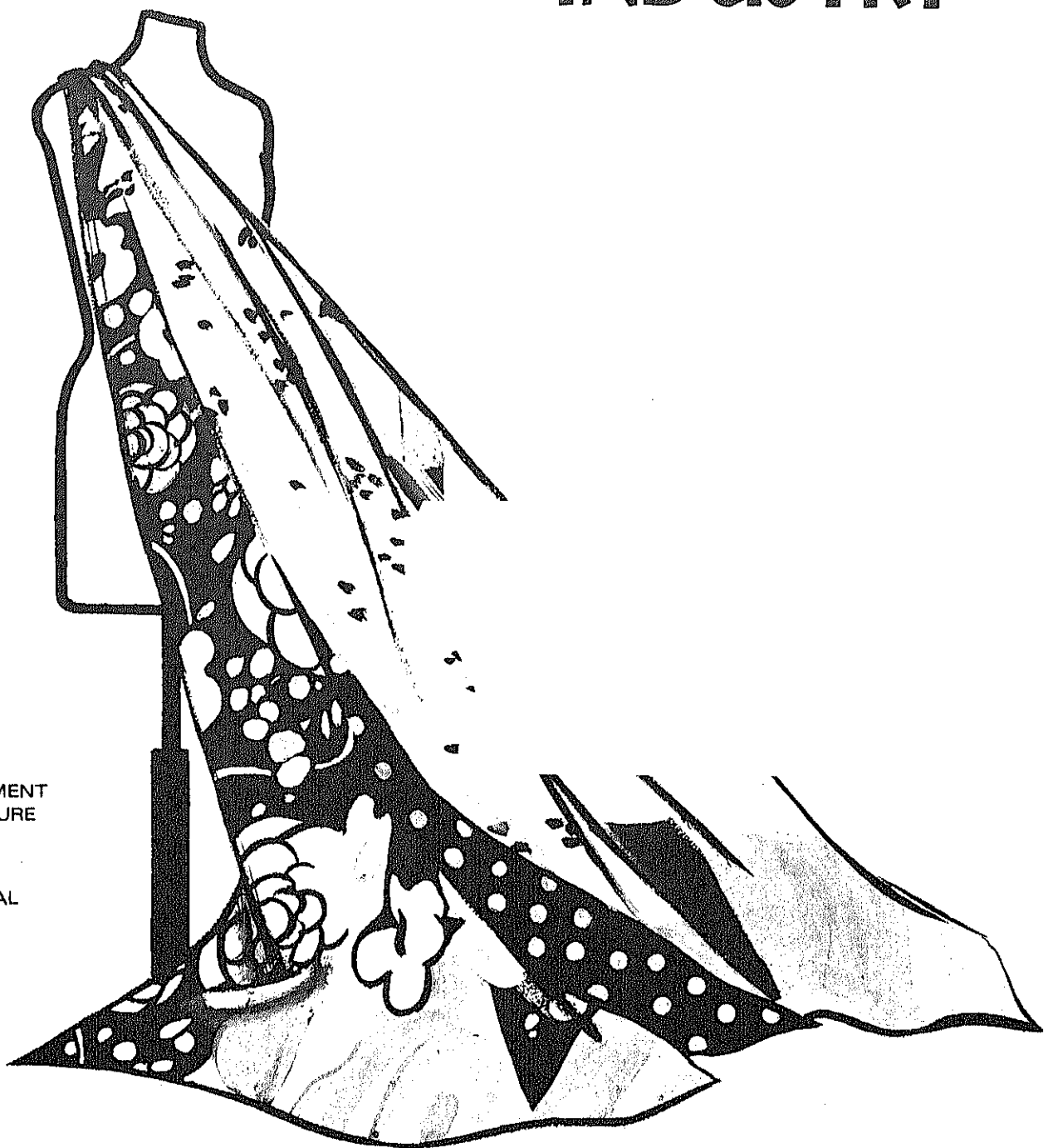


Developments in THE JAPANESE TEXTILE INDUSTRY



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Preface

This study was undertaken to determine the near-term impact on cotton consumption and the market for U.S. cotton resulting from many far-reaching changes that have occurred in recent years in Japan. An analysis of this sort cannot provide the final answer to the question posed; it can only indicate and evaluate the factors involved and point out the direction of events as they appear to be most likely to develop at this time. Nevertheless, it is hoped that this study will be of interest and assistance to those who are concerned with the future of cotton, especially U.S. cotton, in the Japanese market.

The author wishes to express grateful thanks to the many who have helped with this study. Of particular note are Bryant Wadsworth, Assistant U.S. Agricultural Attaché, and Taro Watanabe of the Office of the Agricultural Attaché in the U.S. Embassy who provided overall guidance and arranged appointments in Tokyo. Also, of special assistance were Shigeo Nishino, Agricultural Specialist in the Office of the Consulate General in Osaka, and A. Ohnuki, textile consultant, who guided her efforts and prepared the way for many conferences with Japanese industry officials in Osaka and elsewhere.

In addition, special acknowledgment is due Enji Arita, Executive Director of the Japan Spinners' Association, and Takashi Murayama, Country Director in Japan for the International Institute for Cotton (IIC), who provided much background and updated information as it unfolded. Appreciation is also due Yoichi Kohno and Akira Hibi of the Japan Cotton Promotion Institute for their considerable support. To countless officials of textile and related industries in Japan is owed a debt of gratitude for their patient assistance, information, and friendship in the preparation of this study.

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Developments in THE JAPANESE TEXTILE INDUSTRY

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Summary

The Japanese economy has been characterized by headlong efforts to produce and export at all costs, and textiles have been no exception. The steady rapid economic growth confronted a rate of inflation in late 1973 exceeding that in all other developed countries and having no precedent in Japan except in the immediate post-World War II era. The quadrupled price of petroleum further complicated economic problems and created additional ones.

The Japanese textile industry, though large and viable, has changed in its relation to the total Japanese economy. Moreover, despite adjustments in the structure and nature of the industry, it still has a number of weaknesses which cause it to be less competitive than newer textile industries in developing countries.

One major problem is the fragmentation between raw material and final product—in all but the Big Nine companies—and the numerous stages of processing and distribution that traditionally result in lack of awareness of the end market. Another weakness is the large number of medium, small, and extremely small enterprises and their lack of independence owing to a high rate of operation on borrowed capital that fosters a contractor production system and low rate of profitability.

Despite these problems, the Japanese textile industry has changed greatly and continues to move in new directions. Although its product no longer constitutes as important a share of total national production or exports as formerly, it makes an important contribution to both. Productivity increases have been impressive and the search goes on for more ways to cut costs and reduce manpower requirements.

With one of the world's largest textile industries, Japan is the world's largest import market for cotton. For the past decade, Japan has imported annually between 3.1 million and 3.9 million bales, usually

between 20 to 30 percent coming from the United States. From the standpoint of the U.S. cotton industry, Japan is the largest single market, taking between one-fifth and one-fourth of total U.S. exports.

Also supplying raw material for the textile industry is Japan's manmade fiber industry, whose output has more than doubled in less than 8 years. Manmade fibers are used in direct competition with cotton and other natural fibers. Despite sharply increased costs of production related to oil price increases and Government control of pollution created by the process of manufacturing manmade fibers, it is unlikely the enormous plant capacity for producing manmade fibers in Japan will stand idle or operate at unprofitable levels of capacity utilization. Japanese manmade fiber producers expect to expand their plant capacity in foreign countries rather than in Japan itself, and some informed opinion in Japan expects that production of manmade fibers in Japan will eventually and gradually move downward.

The domestic market for textiles has been expanding, based both on a steadily growing population and higher levels of per capita textile consumption. As in other countries, most textiles are consumed as apparel, for which the market has been expanding rapidly as Japanese consumers have become more prosperous, more clothes conscious, and more fashion-minded. Markets for industrial and household textiles have also risen, reflecting new life-styles and expansion of industrial uses.

The Japanese textile industry has depended heavily on export markets and has been for a number of years the world's largest textile exporter. In 1973, however, Japan became a net importer of textile fiber and products, the year ending with a net import balance of more than \$600 million. Imports dropped sharply in 1974, but it is likely they will again make an important contribution to domestic supply when general economic conditions improve.

Since the mid-1950's the Japanese Government has fostered the welfare of the Japanese textile industry by voluntary and compulsory programs designed to assist in meeting the adverse conditions that prevailed from time to time. A new law effective July 1, 1974, was designed to strengthen small and medium textile firms to better cope with current conditions. For the first time, a Government program encompassed market research and distribution.

The textile industry was among the first to undertake manufacturing in foreign countries. The emphasis has now shifted from supplying foreign domestic markets where plants are located and third markets to supplying the Japanese domestic market, as well. Recently, new textile plants have been established where there is a ready source of raw materials for textile processing, or raw materials for producing manmade fibers.

Although the unsettled economic conditions of 1975 in Japan and elsewhere complicate the problem of evaluating the near-term cotton market in Japan, it is likely that the long-term trend will be upward. It is reasonable to expect that total fiber consumption will continue to advance with increasing population, and that cotton can maintain at least 40 percent of the total fiber market.

The cotton market in Japan, however, will be greatly affected by the balance of foreign trade in cotton textiles. Ministry of International Trade and Industry (MITI) estimates that imports will supply about 16 percent of the domestic cotton textile market by 1982. Even though cotton textile exports may gradually diminish, it is assumed they will still constitute about 10 percent of cotton mill consumption in the early 1980's. Considering these foreign trade trends, in that time frame the import market for cotton will be in the range of 3.7 million to 4.4 million bales of cotton. Of this amount, it is likely that the United States could supply at least 1.1 million bales. This estimate is in line with historical performance and is supported by the numerous factors favoring U.S. cotton in the Japanese market. It appears that U.S. cotton will find a large and ready market in Japan when the growth of the Japanese economy is resumed.

Industry Trends

The textile industry of Japan may be defined to encompass all phases of textile production—spinning textile fibers, weaving and knitting yarns, finishing

textile fabrics by printing, bleaching or dyeing, producing manmade fibers, and manufacturing finished items such as apparel, household goods, and industrial products.

The modern textile industry of Japan is nearly 100 years old, having been established around the 1880's, fully 50 to 100 years later than in other major industrial countries. Japan had long had a cotton textile industry, however. In the mid-1800's it was producing about 100,000 bales of ginned cotton, and commercial production of cotton fabric by handcraft was highly developed. In Osaka, a raw cotton exchange for forward trading was established as early as 1760. Over the years the industry became a major economic factor, provider of employment, and earner of foreign exchange.

At present, the textile industry is in a state of revolutionary change. Its place in the scheme of Japanese industrial life has been gradually reduced in relation to total manufacturing, although in absolute terms it remains large and viable. For example, in 1965 the textile industry's production amounted to 8.04 percent of total manufactures; in 1973 it amounted to only 4.84 percent. The value of shipments from textile plants increased from over \$7.2 billion in 1965 to \$12.2 billion in 1970, \$12.8 billion in 1971, \$17.4 billion in 1972, and reached \$22.5 billion in 1973. Some upgrading of product, revaluation of the yen, and considerable inflation are reflected in these value comparisons, especially in the last few years.

As an earner of foreign exchange, the textile industry has also dropped in relation to Japan's total, although it continues to make an important contribution. In 1965, 18.7 percent of Japan's total foreign exchange earnings from merchandise exports was from textile mill products; in 1970, this ratio dropped to 12.4 percent and to 8.9 percent in 1973. However, textiles provided \$1.5 billion of export earnings in 1965, \$2.4 billion in 1970, and \$3.3 billion in 1973. Thus, while declining in relative importance, foreign exchange earnings in terms of dollars actually increased by 60 percent between 1965 and 1970 and more than doubled from 1965 to 1973.

Although adapting well to conditions that have prevailed in the last decade, and remaining large and viable, the textile industry continues to be faced with many problems. One of the major problems is the less competitive relationship of the Japanese industry compared with newly established industries in nearby Southeast Asian countries. This is reflected in spindle utilization which in 1970, based on a 5-day 3-shift operation, was 85.85 percent in Japan, 121.00 in Korea, 114.63 in

Taiwan, and 135.58 in Hong Kong.¹ (The problem of competition from textile industries in other countries is more fully explored in the section on investments.)

Another problem is associated with labor. Even as late as 1970, average earnings in textiles was only 74 percent of all manufacturing, the second lowest ratio among textiles producing countries, the lowest being in the United States.² Pay is based on monthly salaries, rather than hourly rates, and on individual seniority rather than individual advance in skills. In addition to monthly salaries, bonuses equal to about 4 months' salary are payable twice yearly. Textile unions have gained the 5-day work week, effective July 1, 1975, although it will probably become a common practice prior to that time. Over the years, despite very substantial salary increases (which in 1974 were 32 percent in the spring, plus summer and winter bonuses of substantial proportions), labor has gradually been attracted to higher paying and more prestigious industries, such as electronics. The recruitment pool for millhands, traditionally young farm girls aged 14 to 15 years, has shrunk as larger numbers continued their education even though some mills offered the opportunity for continuing education equivalent to high school. With improved education, greater numbers have been seeking employment outside of the textile industry.

Labor productivity in the textile industry is low compared to other major industrial segments. It has been estimated that in 1970 the average productivity of labor in the textile industry—measured roughly by the value added in the industry divided by the cost of labor input—was only about 55 percent of the average of eight major industries. Productivity in apparel manufacturing was even lower.

A third problem concerns investment in the industry. Results of a survey (table 1), while by no means comprehensive, show a one-fourth decline in investments in spinning and an almost two-thirds decline in manufacture of manmade fibers. It is likely that investment money in Japan, rather than expanding productive capacity, will be channeled to projects in the textile industry to further modernize present capacity and reduce costs, or else will be channeled to industries that give promise of greater profitability. This trend is already underway with the diversification of most of the Big Nine spinning companies into unrelated fields, such as foodstuffs, cosmetics, furniture, housing, pollution

Table 1.—INVESTMENTS IN TEXTILE AND RELATED INDUSTRIES, 1971-73 PROJECTED

[In millions of dollars]

| Industry | Number of companies surveyed | 1971 | 1972 | 1973 |
|--------------------------------|------------------------------|--------|--------|--------|
| Spinning: | | | | |
| Cotton | 43 | 106.76 | 97.88 | 91.05 |
| Wool | 40 | 29.91 | 44.95 | 26.47 |
| Cellulosic | 17 | 9.18 | 8.23 | 5.69 |
| Noncellulosic | 50 | 55.46 | 26.58 | 16.64 |
| Hard and bast fibers .. | 7 | 3.85 | 7.86 | 11.59 |
| Total spinning ... | 157 | 205.16 | 185.50 | 151.44 |
| Weaving | 18 | 22.63 | 19.22 | 12.10 |
| Dyeing and finishing ... | 48 | 45.78 | 53.14 | 52.82 |
| Manufacture of manmade fibers: | | | | |
| Rayon | 15 | 28.05 | 33.45 | 30.56 |
| Acetate | 4 | 10.62 | 8.34 | 2.74 |
| Noncellulosic | 25 | 261.45 | 138.46 | 72.43 |
| Total manmade fibers | 44 | 300.12 | 180.25 | 105.73 |

Note: Years are Japanese fiscal years from April 1 of the year shown through March 31 of the following year.

Source: *Daily News Record*, Dec. 7, 1972.

control devices, and real estate. Investments in textile and related industries are projected for Japanese fiscal year 1974 at only \$73.3 million.

Despite the poor showing in relation to other industries, the textile industry has improved its own situation tremendously. Expansion of the Japanese cotton spinning industry hit a postwar peak of over 13.3 million spindles in 1963. Owing to overcapacity, various laws have been instituted since 1956 to reduce spinning capacity, and about 2 million spindles have been scrapped, leaving Japan with about 10 to 11 percent of the world's spindles. The scrapping program encouraged modernization to replace older equipment, so that by mid-1973 improved systems encompassed more than half of the remaining 11.5 million spindles. Over half of the country's spindles are owned by the Big Nine companies.

Improvements in spinning mills involved open-end system spinning, continuous automatic doffing and automatic winding systems, and large package systems. Of the almost 7 million modernized spindles 200,000 were open-end units as of June 1974. The productivity of an open-end rotor is generally considered 2½ times that of conventional ring spindles and permits a large

¹ "Study on Textiles," Report of Working Party on Trade in Textiles, General Agreement on Tariffs and Trade, Dec. 29, 1972. Geneva.

² See footnote 1.

Table 2.—TECHNOLOGICAL CHANGES IN THE JAPANESE SPINNING INDUSTRY, 1967-72

[In thousands of units]

| Item | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 |
|---|--------|-----------------|-----------------|-----------------|--------|--------|
| Advanced ring-spinning system (Automatic handling system) | -- | -- | -- | -- | 75 | 348 |
| Open-end system ¹ | -- | ² 19 | ² 51 | ² 92 | 130 | 170 |
| Continuous automatic ring-spinning system and large package system | 340 | 1,580 | 2,420 | 2,920 | 3,775 | 3,800 |
| Automatic-doffing and automatic winding system | 1,600 | 2,200 | 2,690 | 2,900 | 2,700 | 2,620 |
| Total improved system units | 1,940 | 3,780 | 5,110 | 5,820 | 6,605 | 6,935 |
| All spindles | 12,614 | 12,365 | 11,659 | 11,632 | 11,475 | 11,606 |

Note: Years are Japanese fiscal years, beginning April 1 of the year shown.

¹ Counted as one unit here, but claimed to be 2½ times as productive as conventional ring spindles. The theoretical limit for yarn size is 40's, but as a practical matter, open-end spindles average 20's in Japan.² Estimate.

Source: Japan Spinners' Association, Osaka.

savings in labor input. According to data for June 1973, 74 percent of open-end yarn productions was all-cotton and consisted almost entirely of yarn counts 20's and below. In one mill, a new automatic handling system for ring-spinning spindles was put into place in 1971 and enlarged the following year to 348,000 spindles.

The cumulative effect of these efforts has been a substantial increase in productivity within the industry. In 1965, there were over 1 million employees in the Japanese textile industry; 5 years later there were less than three-quarters of a million employees. Yet the value added to the products processed by the industry more than doubled in this 5-year period. In 1955, working an 8-hour day, an average of 8.13 employees were required to produce one 400-pound bale of size 20's cotton yarn. By 1970, 4.13 man-days were required, and in 1972 only 2.9 man-days were needed. Comparable productivity advances are not to be found in the apparel industry. Within the spinning industry, there is also a steady rise in the practice of three-shift operation. Despite the reduced numbers of spindles, spun yarn (not including condenser spun yarns) output has risen from 1,006,702 metric tons in 1965 to 1,231,000 metric tons in 1970, and further increased to 1,314,313 metric tons in 1973. Production was down in 1974 as adjustments were made to the economic slowdown and as inventories were worked off.

The weaving segment of the textile industry has also undergone numerous changes, but the need to modernize further is recognized. The number of cotton-type

looms (looms utilizing spun yarn) peaked at just over 400,000 in late 1965. Largely by means of Government-assisted stabilization measures, the number was gradually

Table 3.—YARN PRODUCTION IN JAPAN, 1965-73

[In million pounds]

| Year | Total ¹ | Cotton ² | Ratio cotton to total |
|----------------|--------------------|---------------------|-----------------------------|
| 1965 | 3,661.5 | 1,271.3 | 34.7 |
| 1966 | 3,705.9 | 1,192.3 | 32.2 |
| 1967 | 3,987.1 | 1,208.9 | 30.3 |
| 1968 | 4,294.0 | 1,242.5 | 28.9 |
| 1969 | 4,461.2 | 1,183.2 | 26.5 |
| 1970 | 4,756.9 | 1,178.8 | 24.8 |
| 1971 | 4,980.0 | 1,199.4 | 24.1 |
| 1972 | 4,855.3 | 1,223.9 | 25.2 |
| 1973 | 5,111.6 | 1,223.6 | 23.9 |

¹ Includes filament and spun manmade fiber yarns, wool yarns, silk yarns, yarns of soft hemp, and cotton yarns.² Includes 100 percent cotton yarn, as well as blended yarns predominantly cotton. According to international practice, blended yarns of chief weight manmade fibers are classed as spun manmade fiber yarns even though they may contain up to 50 percent cotton by weight.

Source: Ministry of International Trade and Industry.

reduced to 342,000 by the end of 1973. Only about 50,000 of these, or roughly 15 percent, are owned by large or medium-sized spinners. Independent weavers, the majority of which are small in size, own and operate over 80 percent of the country's looms. There is also a significant number of unregistered looms considered illegal. A new law, effective April 1, 1974, raised money from weavers to provide a fund to reduce illegal equipment by one-fourth, and to register the rest.

With a diversity of ownership and number of small-scale weaving companies, this sector as a whole has lagged in modernization. Only about one-third of the looms are automatic; on the other hand, the industry has some very modern types of looms, including shuttleless and waterjet. Average loom utilization in 1970 was just under 82 percent based on 5-day, three-shift operation, while in Korea and Taiwan it was over 108 percent and in Hong Kong over 135 percent.³ However, even with reduced numbers of looms and lower utilization rates than Japan's three most important competitors in the Far East, production of spun yarn fabrics remained more or less stable in 1971 and 1972 and increased in 1973, according to Japan's Ministry of International Trade and Industry (MITI).

As for Japan's knitting industry, significant expansion has resulted in output doubling in less than a decade. This development occurred somewhat later in Japan than in Western Europe and the United States. According to the GATT Textile Study, investment in the knitting industry totaled \$15.3 million in 1960, but increased to \$128.9 million by 1970. Some knitting companies are associated with the Big Nine spinners, but many are independent and some are quite small and involve unregistered (illegal) knitting machines running in back rooms. Although the Government has restrictions on the numbers of knitting machines, capacity has been expanded by the substitution of new modern equipment. Yarns used by the knitting industry (including yarns for knit products exported) almost doubled in the period 1965 to 1971, but dropped substantially in 1972 and 1973. Use of cotton yarns more than doubled between 1965 and 1971 as did manmade fibers. Wool and other fibers were losers. The knitting industry has been consuming from 11 to 15 percent of the total yarns utilized in Japan in recent years.

In order to meet domestic demand for high-quality, high-fashion goods, the number of converters has also been expanding as has the number of boutique outlets.

In the light of new conditions prevailing with respect to the textile industry, and with the expiration of

legislation in July 1974 that dealt mainly with restricting the installation and use of equipment, a new Government policy to guide the textile industry has been adopted. The new law, which went into effect on July 1, 1974, is designed to promote vertical integration in the textile-apparel industry, development of apparel-making technology, and improvement of trading terms and other aids for small firms. It also calls for an information-gathering center, and provides aids for firms changing business. This is the first Government program with emphasis on apparel making and distribution of textile products. (More detail on Japanese Government policies affecting the textile industry is in the section entitled "Government Policies.")

Another factor affecting the present outlook for the textile industry is increased involvement of the trading companies (shosha) in the industry. As a result of the policies of occupation forces that broke up the "zaibatsu"⁴ after World War II, trading companies remained relatively weak until after the close of the Korean War. They have staged a comeback, and have once again become a strong element in Japanese economic life. The shosha have long been associated with the textile industry in a variety of relationships. A universally important function has been financial, since they generally have strong ties with banks and are able to provide working capital to finance the flow of raw cotton and other fibers to and the finished products from the industry. In some situations, there are corporate ties between textile mills and trading companies. In other situations, they actually buy grey goods, contract for finishing and garment making, and dispose of the goods to wholesalers or export them. While some manufacturing companies have their own sales departments, more often trading companies channel products manufactured by associated firms into domestic and foreign markets, acting as brokers or commission agents. Shosha provide market information and otherwise guide and coordinate the activities of the textile producers. One of the largest trading companies claims to carry on 10 percent of the export and 12 percent of the import business of the country. Manufacturing companies utilize their services according to their needs.

With the traditional flexibility of the Japanese, trading companies are adapting their functions to meet

³ See footnote 1.

⁴ There is no English equivalent to the word "zaibatsu" nor to its concept. Zaibatsu are composed of groups of "sister" companies engaged in various economic activities such as finance, manufacturing, shipping. Prior to World War II these companies had interlocking directorates; now they are looser organizations, but with a degree of cooperation within them that furthers their common interests. In the "zaibatsu," trading companies are an important element.

the changing requirements of the textile industry. They are planning to take the leadership in forming vertically integrated or vertically grouped industries that should better meet the expected competitive conditions. The efficacy of this principle in Japanese economic life has been amply demonstrated by the Big Nine spinners who derived their strength from vertical integration from spinning through all processing to weaving and finishing, and then moved to the production of cellulosic and noncellulosic fibers.

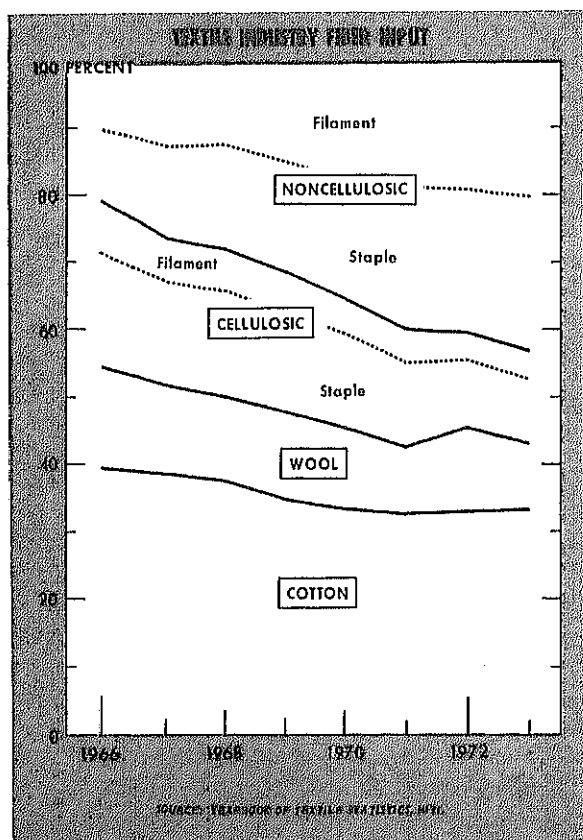
The shosha will probably have greater impact on merchandising policies while continuing to perform their traditional functions. They have become involved with foreign manufacturing ventures, utilizing their networks of financial and distributive institutions. Thus, the trading companies can be expected to play a more active role and gain ever increasing importance in the changing textile industry of Japan.

Another trend in the Japanese textile industry is its move from being principally a cotton textile industry to being a multifiber enterprise. Prior to the widespread availability of cellulosic and noncellulosic fibers, only natural fibers—cotton, wool, and silk—were processed. By the late 1960's to early 1970's, cotton constituted between 30 to 40 percent of total fibers put into

process, including manmade fiber filament yarn processed directly on looms and used directly on knitting equipment. Cotton's share began to halt its decline in 1972.

If only fibers processed on spinning systems are considered, as contrasted to all fibers put into process by the textile industry, the same trends are reflected. While cotton was practically the only fiber spun on cotton-system spindles in the early days, by 1971 its share had declined to 50 percent of all fibers processed by spinning equipment. This ratio increased to over 51 percent in the following 2 years.

It is of utmost importance to cotton interests that the erosion of cotton's share of fibers utilized be permanently halted, and that the reversal of the trend that occurred in 1972 with respect to fibers spun on cotton-system equipment be continued. In the historical perspective this seems entirely possible. In the period 1936-39, 64.4 percent of the yarns produced were cotton. Immediately prior to World War II, manmade fibers, mainly rayon, were forced on the Japanese domestic market as a substitute for imported cotton. During and immediately after the war years, cotton was practically unavailable, but when adequate supplies were finally obtained and the industry restored, Japanese consumers turned away from substitutes and returned to cotton. With the introduction and widespread use of noncellulosic manmade fibers in the 1950's, Japanese customers were again drawn away from cotton by the much-advertised characteristics of manmade fiber products. It is likely that the peak of their popularity has been reached and that in both domestic and export markets, cotton will regain a larger share of the fiber market.



Raw Materials

Cotton—With one of the world's largest textile industries, Japan has been the world's largest import market for cotton. In the past decade, cotton imports have ranged annually between 3.1 million and 3.9 million bales. Although Japan imports cotton from about 40 countries, the United States is generally the main supplier, usually providing from 20 to 30 percent of the total. In the crop year 1973-74, the U.S. share amounted to more than 35 percent. Mexico follows the United States in second place in most years; other important suppliers are the USSR, Brazil, Pakistan, Nicaragua, and El Salvador. Japan's needs for extra long staple cotton are filled by Egypt, the Sudan, and Peru.

The complete dependency of Japan on imported cotton, and its vulnerability to the vagaries of supply, price, shipping, and foreign exchange fluctuations, has caused much concern, especially in recent years, by

Japanese cotton interests. As is true of practically all textile industries, a stable supply of cotton at predictable prices is very important to the industry. Consequently, Japan is presently looking for ways to solidify

Table 4.—JAPANESE IMPORTS OF COTTON BY COUNTRY OF ORIGIN, AVERAGE 1963-67, ANNUAL 1968-73

(1,000 bales of 480 pounds net)

| Country of origin | Year beginning August 1 | | | | | | |
|---------------------------------|-------------------------|------------------|-------|------------------|------------------|------------------|------------------|
| | Average 1963-67 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
| United States | 1,065 | 664 | 662 | 869 | 758 | 967 | 1,323 |
| Central America: | | | | | | | |
| Costa Rica | 4 | 11 | 7 | (¹) | 0 | 0 | 0 |
| El Salvador | 180 | 106 | 185 | 251 | 195 | 238 | 44 |
| Guatemala | 143 | 151 | 116 | 185 | 168 | 181 | 131 |
| Honduras | 23 | 18 | 20 | 4 | 5 | 10 | 18 |
| Mexico | 734 | 735 | 604 | 492 | 529 | 467 | 437 |
| Nicaragua | 294 | 297 | 189 | 288 | 293 | 235 | 102 |
| Total Central America | 1,378 | 1,318 | 1,121 | 1,220 | 1,190 | 1,131 | 732 |
| South America: | | | | | | | |
| Argentina | 14 | 0 | 3 | 64 | (¹) | 0 | 5 |
| Bolivia | 0 | 0 | 0 | 1 | 10 | 15 | 13 |
| Brazil | 113 | 212 | 422 | 277 | 324 | 237 | 175 |
| Colombia | 1 | 0 | 29 | 24 | 1 | 7 | 6 |
| Paraguay | 1 | (¹) | 8 | 8 | 0 | 0 | (¹) |
| Peru | 27 | 7 | 7 | 5 | 4 | 1 | 21 |
| Total South America | 156 | 219 | 469 | 379 | 339 | 260 | 220 |
| Western Europe: | | | | | | | |
| Greece | (¹) | 0 | 0 | 14 | 26 | 0 | 3 |
| USSR | 126 | 316 | 301 | 140 | 329 | 589 | 540 |
| Asia & Oceania: | | | | | | | |
| Iran | 13 | 14 | 49 | 45 | 33 | 12 | 34 |
| Southern Yemen | 1 | 9 | 15 | 9 | 3 | 0 | 1 |
| Syria | 44 | 29 | 82 | 83 | 43 | 9 | 6 |
| Turkey | 47 | 25 | 89 | 134 | 33 | 20 | 56 |
| Burma | 5 | 0 | 0 | 0 | (¹) | 0 | 0 |
| India | 153 | 123 | 155 | 120 | 143 | 132 | 225 |
| Pakistan | 118 | 101 | 62 | 105 | 332 | 308 | 70 |
| Australia | 0 | 9 | 23 | 12 | 8.8 | 35 | 11 |
| Total Asia & Oceania | 381 | 310 | 475 | 508 | 595 | 516 | 403 |
| Africa: | | | | | | | |
| Burundi | 1 | 0 | 4 | 8 | 0 | 1 | 1 |
| Cameroon | 1 | 1 | 21 | 44 | 11 | (¹) | 2 |
| Central African Rep | 1 | 0 | 12 | 13 | 0 | 1 | 3 |
| Chad | 5 | 9 | 27 | 49 | 12 | 20 | 42 |
| Dahomey | 0 | 0 | 8 | 12 | 7 | 4 | 8 |
| Egypt | 96 | 112 | 110 | 136 | 110 | 182 | 225 |
| Kenya | 2 | 0 | 0 | (¹) | 0 | (¹) | 1 |
| Mali | 0 | 0 | 9 | 14 | 3 | 3 | 2 |
| Mozambique | 0 | 2 | 56 | 26 | 39 | 37 | 31 |
| Nigeria | 4 | 2 | 0 | 9 | 0 | (¹) | 1 |
| Sudan | 57 | 86 | 69 | 74 | 62 | 92 | 108 |
| Tanzania | 36 | 64 | 45 | 49 | 11 | 19 | 12 |
| Uganda | 27 | 19 | 43 | 86 | 44 | 50 | 53 |
| Upper Volta | (¹) | 1 | 6 | 10 | 1 | (¹) | (¹) |
| Total Africa | 230 | 296 | 410 | 530 | 300 | 409 | 489 |
| Other countries | 7 | 8 | 10 | 9 | 18 | 11 | 18 |
| Total all sources | 3,343 | 3,131 | 3,448 | 3,669 | 3,555 | 3,883 | 3,728 |

¹ Less than 500 bales.

Source: All Japan Cotton Spinners' Association, *Monthly Return of the Foreign Trade of Japan*.

long-term sources of supply and, insofar as possible, to remove uncertainty regarding supply and price.

New trading practices have arisen to deal with the new conditions that began to emerge in 1971. Heavy emphasis was placed on forward purchasing in the 1973-74 season, to the extent of 1,450,000 bales of U.S. cotton alone. In addition, large quantities of cotton from other producing countries were purchased with long forward delivery periods. This in turn provided the basis for cotton traders to "forward contract" with growers for the production from specific acreage at a fixed price. While "forward contracting" was not an entirely new basis of doing business, the practice was greatly expanded beginning in the 1972-73 season. In a sense, this was an effort to guarantee supplies and mitigate the Japanese dependency on foreign market fluctuations. Forward contracting was also fostered by anticipation of yen revaluation which would cause a rise in prices of cotton from countries trading in dollars. Most forward purchasing was done by trading companies that usually handled cotton imports.

The role of the trading companies in commodity contracting during this period is a sensitive one. According to an investigative report by MITI, six of Japan's largest trading firms, having available large liquid funds as of September 1972 and in anticipation of changed monetary relationships, bought very large quantities of cotton, as well as wool, silk, soybeans, lumber, land, and securities, on speculation. The report said that such moves contributed to the runup of the prices of cotton and other basic commodities.

Over the past decade, there have been shifts in Japan's sources for cotton. The expanded supply situation in some producing countries, such as the USSR and Brazil, has brought about greater export capabilities. In addition, some of the shift has resulted from Japan's changed requirements for cotton grade and staple, as well as by the trading practices of various supplying countries and, more recently and perhaps of less significance, the changed monetary relationships between Japan and its suppliers.

A major problem in the 1973-74 crop year was the difficulty arising from default by sellers on forward contracts for cotton at fixed and relatively low prices at a time when world prices moved upward rapidly to new high levels. Suppliers in Central America attempted to renegotiate contracts at higher than contract prices, and shipments were held up and imports from these sources were at minimum levels. Ordinarily, these countries account for about 20 percent of Japan's total imports. In addition, for a time, Brazil and Pakistan placed an embargo on exports of cotton, so that the Japanese

could not obtain the amounts expected from those countries. In the light of these circumstances, Japan depended more heavily on supplies from the United States, whose cotton shippers generally upheld the sanctity of contracts despite the much increased world prices. In view of this experience, it is hoped that at least some residual favor for U.S. cotton may result. Other advantages for U.S. cotton seen by the Japanese are: a stable supply is generally available; Export-Import Bank credit is also available, and this provides relatively low-interest loans for cotton purchases; a wide selection of grades and staples of Upland cotton is offered; purchases can be based on U.S. Government certificates of quality if desired; and there is a large volume of cotton suitable for production of yarn in the important 30's and 40's range.

Monetary relationships also have some bearing on shifting cotton sources. Beginning August 27, 1971, the changed relationship between the yen and the dollar made U.S. cotton cheaper in Japan than it otherwise would have been. This was also true of cotton from other countries whose currencies were tied to the dollar and who were important cotton suppliers to Japan—for example, Mexico and the South and Central American countries. On the other hand, the relationship between the yen and the currencies of African countries did not change as much as the relationship between the yen and the dollar. Whereas Japan obtained about 8 percent of its cotton from 10 countries in Africa south of the Sahara, in the 1970-71 season, in the first 7 months of the 1973 crop year, only 5 percent of Japan's imports came from these African sources. Japan continues to look to Egypt and the Sudan for long and extra-long staple cotton to make fine yarns, especially for the range of counts 60's and finer.

The qualities of cotton needed by Japan are changing in relative importance. This has resulted from greater demands placed on cotton processed by automatic mixing equipment and high-speed spinning equipment, and from the recent emphasis on production of higher quality cotton products.

Even though longer staple cotton costs more than shorter, total cost of producing cotton yarn with longer staple cotton may not be greater because of offsetting savings in labor and other inputs. Then too, the upgraded value of the finished product—higher count yarns and finer fabrics—generally cover the increased raw material cost. As shown in the following Table, in the 1972-73 and 1973-74 crop years, there was a greater proportion of total cotton used in staple above 1-1/32" than in previous periods.

| | 1966-67 Percent | 1972-73 Percent | 1973-74 Percent |
|---|--------------------|--------------------|--------------------|
| 1-1/8" and longer (long and extra- long staple) | 5.2 | 7.2 | 9.4 |
| 1-1/32" to 1-3/32" (medium-long staple) | 64.7 | 69.7 | ¹ 67.1 |
| 13/16" to 1" (medium staple) | 24.0 | 16.7 | 17.0 |
| Desi types (below 13/16") (short staple) | 6.1 | 6.4 | 6.5 |

¹ Drop caused by short supplies from Central American countries.

Source: Japan Cotton Traders' Association.

This trend can be expected to continue. However, increased numbers of open-end spinning units are processing large quantities of short staple cotton into good-quality yarn with greater speed, efficiency, and lower costs than can be achieved with ring spindles. Consequently, the demand for the shorter staples will probably be sustained.

Japan is also using more long and extra-long staple cotton. Whereas in 1966-67, 87,000 bales of Egyptian cotton were imported, in 1972-73, 125,000 bales and in 1973-74, 147,000 bales were imported. Even larger quantities were expected to be imported in 1974-75, but this expectation will probably not be realized in view of the slowdown in demand for high-quality textiles, owing to the general economic situation. A demand trend similar to that for Egyptian has also occurred with respect to Sudanese cotton.

The radical price fluctuations for cotton in 1973 and 1974 caused enormous pressures in the market and much confusion. Despite the high degree of buying for forward delivery, some cotton was purchased at prices greatly exceeding that prevailing at the beginning of the season. In the Japanese market Egyptian cotton, for example, had been selling for around 50 cents per pound in January 1973, was quoted at \$1.20 to \$1.50 per pound by October 1973, and at \$1.35 in July 1974. Upland type cotton (SM 1-1/16") with an average price of 32 to 40 cents per pound in early 1973 was being quoted at 89 cents per pound by October 1973, and nominally quoted at 53 cents in October 1974. The changed relationship between the yen and the dollar absorbed some of this price increase. While the full extent of the runup of cotton prices was being felt in the United States, the increase was less in Japan when currency realignments are taken into account.

Table 5.—COTTON PRICES IN THE JAPANESE MARKET, AVERAGES 1969-70/1973-74, ANNUAL AUGUST 1972-OCTOBER 1974

[In U.S. cents per pound]

| Period | U.S. Texas SLM 15/16" | Mexican SM 1-1/16" | Egyptian Giza 67 |
|------------------------|-----------------------------|--------------------------|---------------------|
| Average, August-July: | | | |
| 1969-70 | 24.32 | 27.84 | 40.60 |
| 1970-71 | 28.25 | 31.30 | 39.05 |
| 1971-72 | 33.30 | 36.65 | 45.50 |
| 1972-73 | 33.70 | 42.00 | 53.00 |
| 1973-74 | 67.52 | 82.75 | 131.96 |
| Prices mid-month: | | | |
| 1972-August | 28.00 | 32.00 | 49.00 |
| September | 26.00 | 32.00 | 49.00 |
| October | 25.20 | 33.00 | 41.70 |
| November | 26.00 | 36.25 | 43.10 |
| December | 29.50 | 39.00 | 45.25 |
| 1973-January | 32.25 | 40.00 | 46.55 |
| February | 33.75 | 40.30 | 50.70 |
| March | 35.50 | 43.50 | 53.50 |
| April | 36.50 | 44.50 | 59.50 |
| May | 40.50 | 50.50 | 59.50 |
| June | 41.52 | 51.50 | 70.00 |
| July | 49.75 | 63.00 | 74.00 |
| August | 57.00 | 70.00 | 86.00 |
| September | 69.00 | 85.00 | 100.00 |
| October | 74.00 | 89.00 | 131.00 |
| November | 62.00 | 81.00 | 131.00 |
| December | 67.00 | 89.00 | 131.00 |
| 1974-January | 71.00 | 97.00 | 131.00 |
| February | 65.00 | 85.00 | 131.00 |
| March | 62.00 | 76.00 | 133.00 |
| April | 59.00 | 71.00 | 133.00 |
| May | 59.00 | 67.00 | 133.00 |
| June | 56.00 | 62.00 | 134.50 |
| July | 59.00 | 58.00 | (2) |
| August | 46.00 | 54.75 | (2) |
| September | 46.00 | 55.00 | (2) |
| October | 46.00 | 53.00 | (2) |

¹ Nominal.

² Not available.

Source: Japan Spinners' Association.

In addition to increases in cotton prices, there were substantial increases in shipping charges and in charges for inland transportation in 1973. Whereas each had averaged around 2½ cents per pound, ocean freight rose to an average of about 4 cents per pound for transportation costs from U.S. to Japanese ports, and another 4 to 5 cents per pound for charges to move the cotton from the ship in Japanese ports to mills. Some difficulties are being experienced by mills and apparel manufactures in passing along the increased costs for semifinished and

finished products, especially in the light of softening demand for textile products.

Japan imported 3.7 million bales of cotton in the 1973-74 crop year. In the long term it is likely that a higher level could be sustained; and if the import level should move upward, larger stocks would be required. Stocks in Japan usually amount to about 4 months' consumption. In addition, 2 months' supply would be in transit to cover the 2 months required for cotton to be moved from cotton-producing countries to the textile areas of Japan.

Manmade Fibers—Japan's manmade fiber industry is second in size only to that of the United States. In 1973, it manufactured 4.1 billion pounds of fiber (including textile glass fiber), estimated to be equivalent to 13.0 million bales of cotton. In that year, Japan produced about 14 percent of the world's rayon filament and staple, 13 percent of the world's nylon, 15 percent of the world's polyester, and 21 percent of the world's acrylic fiber.

Manmade fibers have been an increasingly important raw material for the Japanese textile industry. Processed on the cotton spinning system, they compete directly with cotton; processed on the wool and worsted spinning systems, they compete with wool.

As in other major manmade fiber-producing countries, Japan's production of cellulosic manmade fibers was developed first, and for a number of years has been more or less stable, in fact, almost stagnant. Production

of noncellulosic fibers, which proceeded apace after World War II, has expanded greatly, and it was not until 1972 that the rapid growth reversed, reflecting the universal oversupply of manmade fibers. Growth resumed in 1973 when production was more than 20 percent over the 1972 total, with polyester showing the sharpest increase. Whereas in 1965, 57 percent of manmade fibers produced in Japan were cellulosic and 43 percent noncellulosic, by 1973 barely 29 percent were cellulosic and more than 71 percent were noncellulosic.

In 1973, cellulosic filament yarn and staple fiber production totaled 1,188.5 million pounds (539,100 mt.) and noncellulosic filament and staple fiber production (not including glass textile fibers) was more than twice as large at 2,884.5 million pounds (1,308,400 mt.).

Of the several types of noncellulosic fibers produced, polyester accounts for by far the largest volume and provides the greatest competition for cotton.

In 1973, noncellulosic fiber production increased by 17 percent over 1972 while the output of cellulosic fibers gained 5 percent. From 1972 to 1973, production of polyester fiber climbed 23 percent, nylon 14 percent, and acrylics 21 percent. These gains took place despite the difficulties of supply and high prices for petroleum feedstocks and chemical intermediates needed for their manufacture. By spring of 1974, it was apparent that production was slowing for practically all types of

Table 6.—CELLULOSIC FIBER PRODUCTION IN JAPAN, 1963-73

[In thousand metric tons]

| Fiber | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Rayon filament | 133.2 | 135.1 | 134.2 | 134.6 | 136.9 | 142.3 | 141.7 | 135.9 | 120.9 | 119.0 | 128.3 |
| Regular rayon | 73.0 | 71.6 | 67.6 | 66.2 | 66.2 | 65.7 | 65.4 | 60.1 | 46.6 | 43.3 | 52.0 |
| Cupra | 16.5 | 17.9 | 18.4 | 20.7 | 22.1 | 23.9 | 26.8 | 27.1 | 24.7 | 24.0 | 25.2 |
| High tenacity | 24.3 | 24.1 | 24.5 | 23.9 | 22.2 | 16.4 | 10.9 | 8.2 | 8.8 | 8.1 | 6.8 |
| Acetate | 19.3 | 21.4 | 23.7 | 23.9 | 26.4 | 28.9 | 30.9 | 32.7 | 34.0 | 36.3 | 37.1 |
| Rayon staple | 329.2 | 354.8 | 364.7 | 375.2 | 386.3 | 366.6 | 372.9 | 376.5 | 376.7 | 392.9 | 410.8 |
| Regular rayon | 318.8 | 340.1 | 344.9 | 353.6 | 363.3 | 343.6 | 350.6 | 352.6 | 351.0 | 364.8 | 379.4 |
| Cupra | 3.1 | 3.2 | 3.0 | 3.2 | 3.2 | 3.3 | 3.4 | 3.4 | 3.4 | 3.1 | 4.0 |
| Acetate | 7.3 | 11.5 | 16.8 | 18.4 | 19.8 | 19.6 | 18.9 | 20.5 | 22.3 | 25.0 | 27.3 |
| Total | 462.4 | 489.9 | 499.0 | 509.9 | 523.2 | 508.8 | 514.6 | 512.4 | 497.7 | 511.8 | 539.1 |

Note: "Rayon filament" includes modified rayon filament yarn.

Source: Ministry of International Trade and Industry.

Table 7.—NONCELLULOSIC FIBER PRODUCTION IN JAPAN, 1963-73

[In thousand metric tons]

| Fiber | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|
| Polyester | 62.3 | 85.6 | 97.4 | 120.8 | 152.0 | 181.4 | 223.4 | 308.9 | 400.2 | 389.1 | 477.5 |
| Staple | 43.5 | 58.6 | 64.9 | 83.7 | 103.8 | 120.0 | 139.6 | 181.6 | 206.2 | 209.6 | 255.7 |
| Filament | 18.8 | 27.0 | 32.5 | 37.0 | 48.2 | 61.5 | 83.8 | 127.3 | 194.0 | 179.4 | 221.8 |
| Nylon | 80.1 | 119.1 | 118.0 | 146.0 | 187.7 | 214.6 | 252.4 | 303.1 | 309.6 | 299.2 | 340.7 |
| Filament | 72.0 | 109.6 | 107.1 | 134.2 | 174.9 | 201.0 | 237.5 | 287.1 | 294.1 | 282.3 | 323.7 |
| Acrylic fibers | 36.0 | 61.6 | 84.1 | 99.4 | 125.8 | 159.5 | 189.5 | 262.9 | 295.9 | 277.3 | 335.3 |
| Staple | 36.0 | 61.6 | 84.1 | 99.4 | 125.8 | 158.8 | 188.4 | 261.4 | 294.1 | 275.1 | 332.7 |
| Vinyton | 37.4 | 44.2 | 49.1 | 54.1 | 60.6 | 69.2 | 73.3 | 74.2 | 75.7 | 65.3 | 65.7 |
| Polypropylene fibers | 6.0 | 10.1 | 8.4 | 17.7 | 26.1 | 31.7 | 36.7 | 44.5 | 49.4 | 50.5 | 49.9 |
| Polyethylene fibers | 5.8 | 8.5 | 10.4 | 10.4 | 11.9 | 11.9 | 11.9 | 13.4 | 12.5 | 12.6 | 12.3 |
| Polyvinyl chloride fibers.. | 8.1 | 9.2 | 8.4 | 7.6 | 8.9 | 9.8 | 11.3 | 11.7 | 12.0 | 10.5 | 10.5 |
| Vinylidene fibers | 3.7 | 4.0 | 3.9 | 4.4 | 5.0 | 5.6 | 5.9 | 5.9 | 6.0 | 5.1 | 5.6 |
| Other fibers | -- | -- | -- | -- | -- | 1.7 | 1.9 | 3.4 | 3.3 | 6.9 | 10.9 |
| Total | 239.4 | 342.3 | 379.7 | 460.4 | 578.0 | 685.4 | 806.3 | 1,028.0 | 1,164.6 | 1,116.7 | 1,308.4 |

Source: Ministry of International Trade and Industry.

manmade fibers. Fiber producers began to tighten production controls to meet the market stagnation on top of restrictions on oil and power supplies that were applied to the industry.

For years the country has produced increasing quantities of major petroleum intermediates needed for noncellulosic manmade fiber production, although, in 1972 there was dip in production of total manmade fibers and in the intermediate materials for their production. A number of chemical intermediates used for noncellulosic fiber production are basic materials for other commodities, such as plastics, no-lead gasoline, and anti-freeze, all of which compete for the available supplies which became critical as a result of the 1973 oil shortage.

In the period 1963 to 1973, Japanese production of caprolactam needed for nylon production expanded from 87,400 metric tons to 459,300 metric tons; acrylonitrile, basic to production of acrylic fibers, increased from 37,900 metric tons to 494,200 metric tons, and terephthalic acid (TPA) for polyester production increased from 55,600 metric tons to 428,100 metric tons (1972). Despite the 1972 textile slowdown, output of TPA and dimethyl terephthalate (DMT) needed for polyester production leaped ahead by nearly 20 percent. In the last quarter of the following year, even though the oil crisis confronted Japan and their

prices had moved sharply upward, all of these petroleum-based products for the manufacture of manmade fibers showed very substantial production increases. Petroleum supply shortages have abated, but sharply higher petroleum prices remain a problem. In 1973, Japan's oil bill was \$7 billion; it is estimated at \$17 billion to \$18 billion for 1974.

MITI granted a substantial price increase for oil products in March 1974 based on the sharply higher prices for petroleum. Electric power rates have been allowed to increase by almost 75 percent since the later part of 1973. Whether these increased costs for higher feedstocks and power can be passed on by the manmade fiber producers in still higher fiber prices is problematical in the short run in view of the slower consumer demand. However, while some dip in profits for companies producing noncellulosics was reported in the fiscal half-year term ending March 1974, this was much less than expected because of the favorable turn in the oil supply situation and sharply increased sales prices for manmade fiber products.

The further sharp expansion of Japan's manmade fiber production capacity was questionable even prior to the fuel crunch of 1973. The oil crisis put the problems of the industry into sharper focus. The supply of intermediate materials for noncellulosics dependent on

Table 8.—JAPAN'S PRODUCTION OF MAJOR INTERMEDIATE CHEMICAL MATERIALS FOR NONCELLULOSIC MANMADE FIBERS, 1963-73

[In thousand metric tons]

| Raw material | Manmade fiber | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 |
|------------------------------------|-------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------|
| Poval | Polyvinyl alcohol | 61.2 | 69.4 | 81.6 | 91.4 | 113.5 | 142.1 | 163.7 | 185.2 | 185.2 | 182.8 | 198.2 |
| Caprolactam | Nylon | 87.4 | 124.3 | 167.2 | 199.9 | 229.6 | 269.0 | 318.4 | 349.4 | 376.2 | 402.0 | 459.3 |
| Cyclohexane | Nylon | -- | -- | -- | -- | 113.5 | 238.9 | 334.8 | 408.4 | 428.9 | 464.7 | 535.1 |
| Acrylonitrile | Acrylic | 37.9 | 78.1 | 153.3 | 167.7 | 190.3 | 231.5 | 326.3 | 423.8 | 525.8 | 537.2 | 494.2 |
| Terephthalic acid (TPA) | Polyester | 55.6 | 69.7 | 77.8 | 110.4 | 129.6 | 166.3 | 194.2 | 257.8 | 353.8 | 428.1 | (¹) |
| Dimethyl Terephthalate (DMT) | Polyester | -- | -- | -- | -- | 149.4 | 219.3 | 290.5 | 401.7 | 551.3 | 647.9 | 720.3 |
| Paraxylene | Polyester | -- | -- | -- | -- | -- | 90.9 | 159.6 | 255.5 | 298.7 | 339.2 | (¹) |
| Polypropylene | Polypropylene | 21.2 | 39.5 | 57.5 | 99.7 | 170.2 | 290.8 | 412.6 | 581.1 | 627.2 | 617.6 | 693.3 |

¹ Not available.

Source: Ministry of International Trade and Industry.

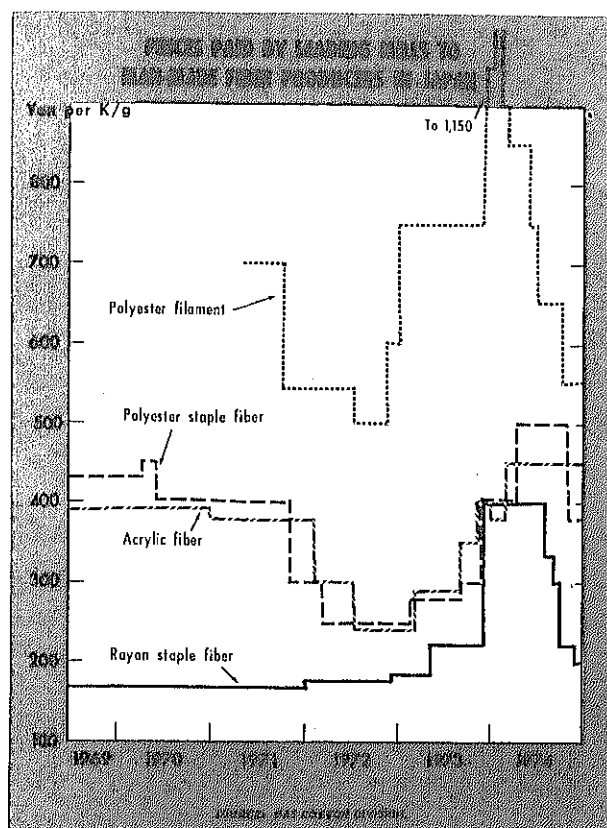
feedstocks from the petroleum industry became critical in 1973. Shortages of ethylene resulting from a plant explosion reduced the supplies available for polyester production. The short supply of caprolactam, another basic raw material, also affected nylon production. In the 9 years before 1973, noncellulosic fiber production capacity expanded on an average of 24 percent annually, while from 1972 to 1973, it dropped almost 8 percent. In 1974, capacity again expanded, but only 5 percent over 1973 levels, and did not reach the 1972 peak. According to information available in mid-1974, further expansion of capacity beyond 1.3 million metric tons of noncellulosic fiber annually was not expected. Wood pulp for cellulosic fiber production was also in short supply.

The runup of prices for these inputs for manmade fiber production reflected these supply-demand relationships. Lag in price adjustments for noncellulosic fiber results from the fact that they are sold on contracts generally of 3-month term. It is expected that supply and price problems will continue to plague the manmade fiber industry in Japan for an extended period and that they will be confronted with further cost increases.

Adding further to manmade fiber production costs have been more stringent national and local government regulations on pollution control. Public outcry against and criticism of pollution created by the manmade fiber plants and other industrial operations affecting residential areas have helped generate them. In view of these

and other considerations, manmade fiber plant expansion has moved out of Japan to neighboring and even distant countries. Fiber of the six largest manmade fiber producers in Japan have fiber production operations elsewhere. Equipment for the production of the main noncellulosic fibers in eight Southeast Asian countries (South Korea, Taiwan, Hong Kong, Philippines, Thailand, Malaysia, Singapore, and Indonesia) is scheduled to expand from 870 tons capacity per day in 1973 to 2,100 tons per day in 1974, and to 3,000 tons per day in 1975. More than three-quarters of production equipment for manmade fiber production in these countries is in South Korea and Taiwan. Both of these countries are expecting to begin or to expand production of caprolactam, dimethyl terephthalate, terephthalic acid, and acrylonitrile for the production of nylon, polyester, and acrylics.

Export demand for Japanese manmade fibers both as fibers and finished textile products will continue. In the short run, countries like Korea and Taiwan will need Japanese manmade fibers until their own manmade fiber plants can meet the demand of their growing textile industries. Pending the completion of projects to assure self-sufficiency of noncellulosic fiber supply, Korea, for example, obtains 40 to 50 percent of its needs for fiber and other textile materials from Japan. The continued rapid growth of manmade fiber and textile industries in such countries depends to a substantial degree on the health of their own domestic and export markets for textile products. For example, it is estimated that export



dependency of the textile industry in South Korea is more than 50 percent and in Taiwan, around 70 percent.

The People's Republic of China has also emerged as a market for Japanese manmade fibers, mainly polyester staple, taking 61 percent of Japan's polyester staple exports in 1973. Other types of manmade fibers are of considerably less importance in this trade. A manmade fiber industry has been gradually emerging in China and additional plants are planned. Japan's export market for manmade fibers and manmade fiber products to the People's Republic of China and other Asian countries is expected to diminish in favor of supplying technology and equipment for manmade fiber production. This will result in greater availabilities of manmade fibers for the domestic industry and greater competition for cotton in that market.

There is little doubt that for some years the manmade fiber manufacturers of Japan will continue to produce large quantities of both cellulosic and noncellulosic fibers, even though short-term production adjustments will be required from time to time. The unit cost for the production of manmade fibers is closely related to the rate of capacity utilization. For example, based on prices prevailing in mid-1973 in large plants in Western Europe, utilization at full capacity was estimated to have resulted

in profit margins of 20 percent; at 70 percent of capacity margins shrank to 5.3 percent; and at 60 percent rates margins vanished. The enormous investment in plant, equipment, and technical know-how, and the large domestic market for textiles will assure both supply and demand. However, some informed opinion in Japan expects that production of manmade fibers in Japan will gradually move downward in the long run.

Demand Trends

Domestic—Japan is a country of almost 110 million culturally homogeneous people steeped in tradition, but looking toward the future. In the past four decades, the Japanese economy and society have undergone transformations and modifications that struck at their very core, particularly in the early postwar period when necessity and finally desire for convenience provided the climate for change. In that time span, dynamic economic conditions created the climate for growth that has continued almost uninterrupted.

The large middle class plays an important role in textile demand; as do the young people. One-half of the population is under 30 years of age and, as a whole, the market is receptive to new fashions even though the traditional kimono and yukata are in most wardrobes. The yukata is an all-cotton informal garment used mainly in the summer; the ceremonial kimono is always of silk, and for everyday wear, manmade fiber fabrics are used. The Japanese domestic market is also characterized by a high concentration of population in urban areas, where 84 percent of the people live.

Japan's population growth is among the lowest in the world and, until 1974, its economic growth rate was one of the highest. For some years, growth in real income was around 10 percent; from 1965 to 1973 it was 8.7 percent. While it is estimated that growth will be minus 1 to 2 percent in real terms from Japanese fiscal year 1973 to 1974, it is expected that from fiscal year 1974 to 1975 growth will pick up at somewhere between 4 to 6 percent. The oil crisis occurring in late 1973 and the resulting high rate of inflation shook the foundation of the Japanese economy, which has been based on stability and growth.

Total personal consumption expenditures have been rising rapidly; for example, they increased more than fourfold between 1965 and 1973. However, in 1974 expenditures in real terms were only 2 percent above 1973. Per capita expenditures for clothing are estimated to have been \$64 in 1965, rising in 1972 to over \$150

and probably exceeded \$200 in 1973 although some portion of these increases reflect Japan's record inflation. It appears that the volume of retail clothing sales in 1974 did not reach the 1973 level. However, the Japan External Trade Organization, known as JETRO, expects the level of expenditures for apparel to triple between 1970 and 1985.⁵

In recent years there have been rapid changes in tastes for clothing and in consumer market behavior. Domestic sales of textile products began to climb in late 1972 as the result of general prosperity and, to some extent, speculative buying. There was building of reserves of textile products down to the consumer level. Beginning in early 1973, retail prices for textiles products rose sharply and since late 1973 the market has been more or less stagnant as the tight money policies of the Government and the end of the speculative buying spree took their effect. Continued inflation, which reached 24 percent in 1974 over 1973, has dampened demand for textiles as higher priced clothing purchases are deferred for purchases of other essentials that have become more costly.

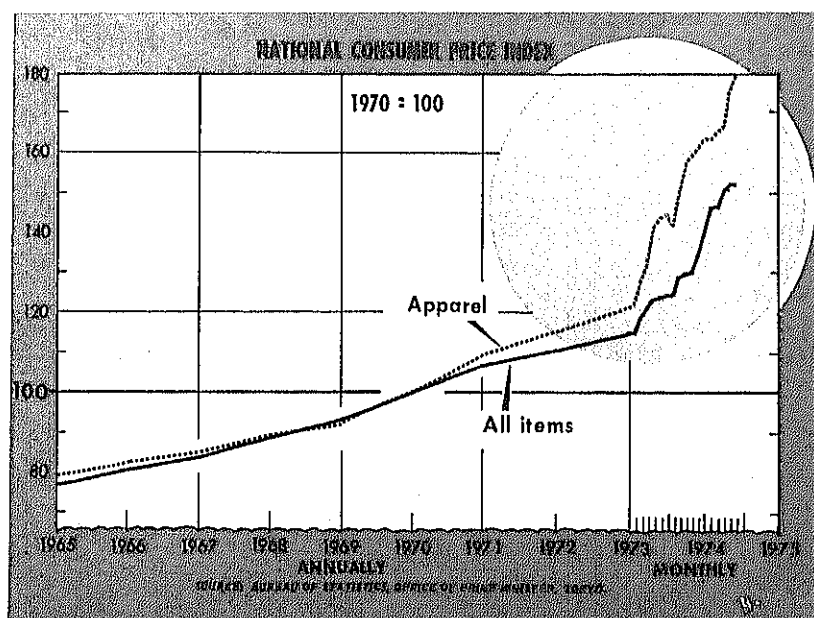
There is thought to be a significant negative price elasticity for textile products. On the other hand, despite higher price tags, clothing will probably continue to be attractive to the Japanese buyer. Expenditures for clothing have been about 10.8 percent of total consumer expenditures. Many consumers spend large sums on nondurables, as well as durables, to improve the quality

of their life, since on the average only a little over 10 percent of their total personal expenditures is for housing which is often inadequate for their needs; consequently, a substantial portion of their disposable income is available for other purchases. In 1973, wage increases were more or less balanced off by rises in retail prices; however, in 1974, the 31-percent wage increases, to which were added huge summer bonuses, outpaced even the unprecedented inflation rate of 24 percent. This situation gave rise to a substantial increase in expendible consumer income.

A number of factors are emerging in the Japanese textile market indicating changes in consumer choices for apparel. The Japanese for the most part "take clothes seriously," especially outerwear for sports and other uses. High-quality and high-fashion goods have become relatively more important in the total clothing market. There has been a general upgrading of wardrobes, and shorter life-cycles for clothing. Growth of leisure time has also affected the market for wearing apparel with greater emphasis on clothing for resort, sports, and casual wear. A shift to ready-made garments has been steady, and more uniformity in clothes other than fashion-oriented outerwear is apparent. The ratio of ready-made men's suits increased from 33.6 percent in 1967 to 50.1 percent in 1972. The ratio of ready-made women's suits also increased from 34.4 to 62.4 percent during the same period.⁶

⁵ "Retailing in the Japanese Consumer Market," JETRO Marketing Series 5, Japan External Trade Organization, Tokyo.

⁶ "Gist of Recommendations on Way of New Policies Toward Textile Industries," as reported by *Nihon Seni Shimbum* (Japanese textile newspaper), Oct. 26, 1973.



There is a strong Western influence in clothing, although traditional clothing is generally used for home and ceremonial occasions. In most instances, a foreign label on apparel is prestigious. The craze for jeans which began in 1970 is expected to continue.

The growing importance of knits in textile markets all over the world is also reflected in the Japanese market, but not to the same degree as in the United States and Western Europe. Knits of polyester and blends have gained an important place in the market, but they are found mainly in men's slacks; to date, knit men's suits and jackets and women's dresses have not enjoyed the same consumer acceptance. Acrylic and polyester knit products have received considerable consumer acceptance in knit outerwear, the product area showing the highest growth rate.

Textiles are more widely used for interior decoration, with the increasing prevalence of Western-style home decoration.

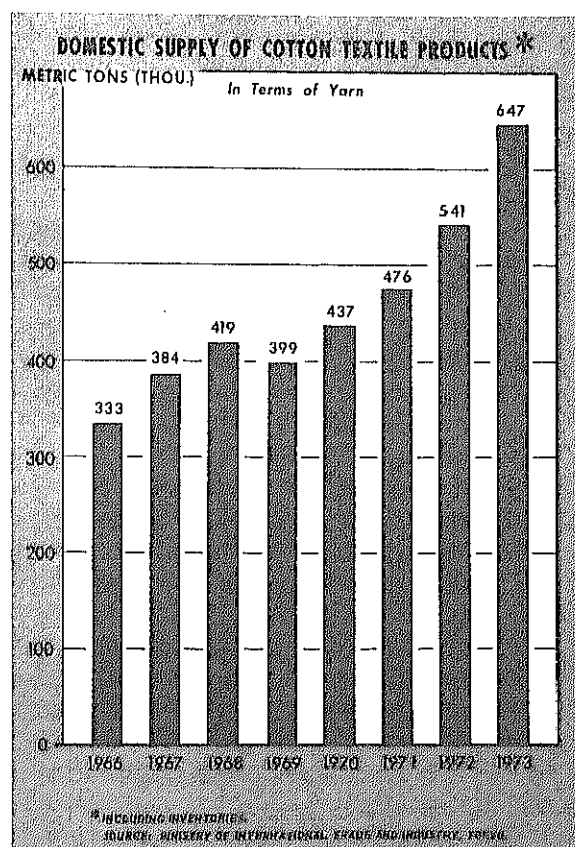
Per capita availability of all fibers rose from an average of 24.3 pounds in the years 1960-64 to 33.8 in 1970, dropped to 31.5 pounds in 1971, and to 30.0 in 1972, but rose dramatically to 41.3 pounds in 1973.⁷ However, much of the increase in 1973 can be attributed to stockbuilding.

The 1972 levels were up almost 25 percent from the 1960-64 average and compared favorably with the per capita availability in Western Europe, which totaled 30.5 pounds in the same year. According to MITI projections, by 1978 per capita consumption of textile products will be more than double the 1960-64 level, without any reduction in the quality of textiles consumed. If this projection is realized, fiber consumption will reach almost 45 pounds per person by the early 1980's.

The share of cotton to total dropped from an average of 47.4 percent in the 1960-64 period to 38.8 percent in 1970 according to FAO data. In 1971, cotton reversed the downward trend by rising to 40.6 percent and further expanded its share in 1972 when it rose to 48.5 percent of all fibers used. This large increase in apparent cotton consumption is exaggerated to the extent of the accumulation of large stocks in that year. A more

⁷ Computed from "Per Caput Fiber Consumption," Food and Agriculture Organization (FAO), published annually in Rome. These data are not adjusted for stock changes, therefore any buildup in stocks, such as occurred in 1972 and 1973 would be additional to fibers actually consumed.

Per capita fiber consumption and fiber ratios computed by MITI show somewhat startling differences from the FAO data. The MITI series are developed from data on finished textile products, utilizing different conversion factors, making little or no adjustment for processing waste, and employing a different methodology with respect to textile products manufactured from more than one textile fiber.



normal growth in cotton's share occurred in 1973 when the ratio was 42.9 percent.

Of great significance to cotton interests is the strong trend toward natural fibers that has developed since 1970. Japanese consumers have become aware of the numerous disadvantages of 100 percent manmade fiber products, and have turned to a greater degree to 100 percent cotton items and cotton-manmade fiber blended products. Manmade fiber apparel has now taken on more of an aspect of utility, and much of the glamour formerly associated with it has faded.

Cotton apparel is above all considered comfortable. Cotton promotion programs have convinced Japanese consumers that cotton is also "suitable for modern life," up to date and fashionable. The Japanese consumer no longer thinks of cotton apparel as only a utility item. The key problem is lack of easy care for 100 percent cotton products, but one of the major technical services projects of the International Institute for Cotton in Japan concerns easy care, and it is hoped that progress in this field will overcome the problem.

Several organizations have worked for a number of years to increase cotton consumption in Japan. The Japan Cotton Promotion Institute (JCPI), wholly financed by the Japanese industry, has been in operation

Table 9.—PURCHASE OF COTTON APPAREL PER 1,000 HOUSEHOLDS IN JAPAN, SELECTED YEARS

[In pieces or pairs]

| Item | 1968 | 1970 | 1972 | 1973 |
|--|-------|-------|-------|-------|
| Women's apparel: | | | | |
| Rainwear (incl. all-weather coats) | 13 | 30 | 40 | 37 |
| One-piece dresses | 272 | 399 | 406 | 366 |
| Jackets | 13 | 20 | 46 | 53 |
| Blouses (long sleeves) | 137 | 144 | 255 | 321 |
| Sweaters and cardigans | 55 | 85 | 132 | 143 |
| Sports shirts (knit) | 29 | 93 | 120 | 194 |
| Sports shirts (woven) | 20 | 37 | 118 | 90 |
| Skirts | 96 | 206 | 226 | 219 |
| Slacks and shorts | 124 | 146 | 285 | 337 |
| Panties (knit) | 2,298 | 2,715 | 4,043 | 4,251 |
| Men's apparel: | | | | |
| Sports shirts (knit) | 67 | 121 | 151 | 218 |
| Sports shirts (woven) | 97 | 121 | 164 | 201 |
| Sweaters and cardigans | 45 | 76 | 93 | 90 |
| Slacks | 301 | 326 | 367 | 430 |
| Undershirts (knit) | 2,309 | 2,521 | 2,917 | 3,052 |
| Shorts and briefs (knit) | 2,742 | 3,158 | 4,075 | 4,260 |

Source: Japan Cotton Promotion Institute Consumer Survey.

since the mid-1950's. At present, JCPI works with the International Institute for Cotton, an organization of several cotton exporting countries for advertising, promotion, and utilization and market research for cotton and cotton products without regard to the country of origin of the cotton. In addition, the JCPI carries out activities for the promotion of U.S. cotton specifically. This is done through contracts with the Cotton Council International under programs sponsored by the Foreign Agricultural Service of the U.S. Department of Agriculture.

The Japanese Cotton Center, initially an arm of the Japan Spinners' Association, is also involved in cotton promotion. Other groups work for the promotion of specific items, such as kasuri (splashed pattern) fabrics, and others of individual interest.

In order to encourage consumption of cotton products, these organizations cooperate to provide the industry and trade with information on cotton fashions, development of new cotton products, and sales promotion of cotton products. They conduct consumer surveys which form the basis for advertising campaigns. Major spinning and weaving companies, finishing mills, garment manufacturers, converters, wholesalers, department stores, and textile associations are all involved in the promotion of cotton products aimed at consumers through the efforts of the JCPI and the JCC. These

organizations must be given a good deal of credit for the greater interest in cotton in the Japanese market. All of these promotion programs have been funded at about one-third of the promotion programs of a single major manmade fiber producer.

Manmade fibers have held an important place in the domestic textile market and have provided severe competition for cotton. According to FAO, percentage distribution of manmade fibers in domestic fiber supplies in Japan have been as follows for the 5-year periods shown:⁸ 1950-54—33.2 percent; 1955-59—35.8 percent; 1960-64—41.4 percent; and 1965-69—45.0 percent. In 1970, they peaked at over 49.4 percent. Since then, their share has slowly receded, while cotton's share has increased, and in 1973 manmade fibers constituted 45.8 percent of the domestic fiber supply. The growth in domestic demand for manmade fibers has been concentrated in noncellulosic fibers, especially polyester; cellulosic fibers lost ground, dropping to less than 16 percent of total in 1972, compared with almost one-fourth in 1966. Even the introduction of polynosic (high wet-modulus) rayon did not stop the trend, despite the fact that polynosic rayon has better qualities than regular rayon, is traditionally cheaper than cotton to spinners,

⁸ "Per Caput Fiber Consumption," Food and Agriculture Organization, published annually in Rome.

and is advertised as "tiger cotton" to the consumer. Rayon is not well reputed in Japan, and does not have wide consumer acceptance for most apparel end-uses.

Of the manmade fibers, consumers generally prefer polyester fiber for apparel, although not 100 percent polyester fabrics except for trousers. The absorptive quality and comfort of cotton are prized in clothing, so for apparel, blended cotton-manmade fiber products continue to be very important.

One aspect of the Japanese economic system bearing on the domestic consumption of textiles is the distribution system which, because of its extremely complicated nature, is thought to add considerably to the retail cost of textile products of all types. A number of major organizations, particularly trading companies and wholesalers, are involved in the distribution of textile products. The basis for the continued existence of these numerous levels of intermediaries between the producer and consumer is derived from the financial weakness of producers, converters, and retailers, and producers' traditional and pervading indifference to marketing their products.

The functions of the trading companies extend over a wide range of activities as do the functions of large wholesalers. Large wholesalers extend services to smaller wholesalers and retailers, where there is a high degree of fragmentation. In 1970 there were 261 department stores in all of Japan doing 10 percent of the retail business, 9,000 self-service stores and supermarkets also doing 10 percent of the business, and 1,400,000

neighborhood stores which actually handled the balance of retail business. Some changes have evolved in recent years with the introduction of supermarkets and chains of smaller and medium-size stores. A limited number of shopping centers, the development of "voluntary chains" which provide procurement economies for independents, and the success of a major U.S. company selling through catalogs in Japan are indicative of these changes. As of March 1973, rules for foreign investments in distribution were relaxed by the Japanese Government to the point where joint ventures could be established with foreign ownership of up to 50 percent of corporate shares and up to 11 stores in a retail chain of stores. This has permitted the establishment of the one U.S. catalog company, and interest by another large U.S. chain in doing business in Japan.

While it is possible that further efficiencies in the distribution system can eventually broaden the market for textile products through economies that would bring down retail prices, it would appear that this will take some time and may prove to be extremely difficult to accomplish. The adverse economic conditions beginning in late 1973 and the severe competition from low-cost textile products imported into the Japanese market directly by big chains may provide the impetus to accelerate this process.

Foreign Trade—Since the early 1950's, Japan has reigned as the undisputed top textile exporter in the world. For years, the textile industry has been export oriented and, while it still is, the situation has been

Table 10.—JAPAN'S COMMODITY AND TEXTILE TRADE, 1962-73

[In millions of dollars]

| Year | All commodities | | Textile exports | | | Textile imports | | |
|-----------|-----------------|---------|--------------------|-----------------------|---|--------------------|-----------------------|---|
| | Exports | Imports | Total ¹ | Fibers & their wastes | Yarn, thread fabric, clothing & made-up goods | Total ¹ | Fibers & their wastes | Yarn, thread fabric, clothing & made-up goods |
| 1962..... | 4,916 | 5,637 | 1,257 | 62 | 1,195 | 765 | 741 | 24 |
| 1963..... | 5,452 | 6,736 | 1,247 | 71 | 1,176 | 929 | 884 | 45 |
| 1964..... | 6,673 | 7,938 | 1,426 | 137 | 1,289 | 935 | 874 | 61 |
| 1965..... | 8,452 | 8,169 | 1,582 | 155 | 1,427 | 904 | 847 | 57 |
| 1966..... | 9,776 | 9,523 | 1,762 | 151 | 1,611 | 992 | 923 | 69 |
| 1967..... | 10,442 | 11,663 | 1,704 | 139 | 1,565 | 1,016 | 898 | 118 |
| 1968..... | 12,972 | 12,987 | 1,977 | 155 | 1,822 | 1,113 | 952 | 161 |
| 1969..... | 15,990 | 15,024 | 2,271 | 171 | 2,100 | 1,127 | 927 | 200 |
| 1970..... | 19,318 | 18,881 | 2,408 | 200 | 2,208 | 1,277 | 963 | 314 |
| 1971..... | 24,019 | 19,712 | 2,772 | 241 | 2,531 | 1,340 | 958 | 382 |
| 1972..... | 28,591 | 23,471 | 2,926 | 310 | 2,616 | 1,895 | 1,348 | 547 |
| 1973..... | 36,930 | 38,314 | 3,279 | 459 | 2,820 | 3,902 | 2,187 | 1,715 |

¹ Including textile fibers and their wastes.

Source: Ministry of Finance, Tokyo.

changing. Among the many headlines in the Japanese economic news during 1973 was that announcing the dramatic turnabout in the position of Japan with respect to textile trade. For the first time since the close of World War II, Japan became a large net importer of textile materials and goods during the first 6 months of 1973. That is, the total value of all imported textile fibers (including raw cotton and wool), yarns, fabrics, and apparel exceeded the total export value of these items. Cotton fabric trade showed the most dramatic change. Whereas, traditionally, cotton fabric had been a major export item and imports had been relatively small, in 1973 imports of cotton fabrics were more than twice the yardage of exports. By the end of 1973, the negative trade balance for textile fibers and textiles exceeded \$623 million.

Exports of Japan's textiles have diminished in importance as compared to total exports of all goods, even though they have increased in value.

Value of textile and clothing exports in relation to total value of goods exported were as follows:

| | <i>Percent</i> |
|------------|----------------|
| 1960 | 27.1 |
| 1965 | 18.9 |
| 1970 | 12.4 |
| 1971 | 11.7 |
| 1972 | 10.1 |
| 1973 | 8.9 |

Source: Ministry of Finance.

This shift occurred for a number of reasons. Beginning as early as the mid-1950's, Japanese exports of cotton textiles to developed countries were faced with restrictions. Even under the Long Term Arrangement Regarding International Trade in Cotton Textiles (LTA),⁹ Japanese exports of cotton textiles were limited to lower growth rates than their industry was willing to accept. This stimulated Japanese interest in expansion of textile industries in a number of developing countries, especially in nearby Southeast Asia. The fact that direct Japanese exports were held to predetermined levels also gave opportunity for developing countries to establish or expand their textile industries to exploit the markets of the United States and other developed countries in

⁹ LTA was an arrangement under the auspices of the General Agreement on Tariffs and Trade (GATT) which governed cotton textile trade between major textile exporting and importing countries from Oct. 1, 1962, to Dec. 31, 1973. It has since been replaced by the GATT Multifiber Arrangement on Trade in Textiles (MFA) which came into effect on Jan. 1, 1974.

competition with Japan. The new industries not only entered world markets with their textiles, but supplied their own markets, instead of importing so much from Japan, and exported to Japan itself. At the same time the Japanese were becoming less and less competitive because of higher domestic manufacturing costs.

Another factor of growing importance in Japan's diminished exports is the position of the People's Republic of China as a textile exporter to Japan and some of the countries in Southeast Asia and other markets of importance to Japan.

Table 11.—JAPAN'S IMPORTS OF COTTON YARN AND FABRIC FROM THE PEOPLE'S REPUBLIC OF CHINA, 1971-73

| Item | 1971 | 1972 | 1973 |
|--------------------------------------|-------|--------|---------|
| Cotton yarn tons ¹ | -- | 202 | 1,708 |
| Cotton fabric 1,000 sq. meters | 1,056 | 69,447 | 133,828 |

¹ Pure cotton yarn, grey.

Source: Ministry of Finance, Government of Japan.

The upward valuation of the yen in August 1971 caused problems for Japanese exports of all kinds. Japanese textiles became priced less advantageously on world markets than before. For example, an item priced at 360 yen during the period prior to August 1971 would have been equivalent to \$1 in cost; when the yen strengthened against the dollar to 265 in mid-1973, other factors being equal, such item would have cost about \$1.35 for buyers in countries paying in dollars. Yen values of more than 300 to the dollar prevailing in 1974 again permitted Japanese textiles and other goods to be priced more competitively on world markets. In contrast to the long period prior to August 1971 when the yen was constantly valued at 360 to the dollar, textile export pricing has been complicated by the changing value of the floating yen.

Limitations on Japanese exports of cotton textiles were also a great incentive to the expansion of Japanese manmade fiber textile exports which, for the most part, were not under limitations. It appears that the shift to manmade fiber exports to major markets, particularly the United States, was a direct result of quota limitations on cotton textiles. For a number of years beginning in 1968, cotton textile ceilings as set forth in U.S.-Japanese bilateral agreements were not filled, as the industry concentrated on exporting manmade fiber textiles, including cotton-blend so classified, in anticipation of the possibility of limitations on manmade fiber textiles which finally occurred in 1971.

Japan's position as exporter of both spun rayon fabrics and cotton fabrics has been eroding, although exports of spun synthetic fabric continued to grow until 1971. In the early 1960's, cotton fabric exports (including blends primarily of cotton) ran over 1.3 billion square yards. By 1973, the total was less than half this amount, the drop occurring in exports to both developed and developing markets. Japan's exports of cotton textiles has shifted into a greater proportion of higher quality and specialty cotton goods, such as the excellent quality screenprints and fabrics made from open-end spun yarns. Prior to the textile recession of 1974, observers believed that the fall-off in exports of cotton products was likely to be offset by increased demand in the domestic market.

With strengthening of the dollar and other currencies in relation to the yen, Japanese exports of cotton textiles picked up and will benefit from any new export drive undertaken to earn foreign exchange needed to pay the country's heavy oil import bill and the increasing costs of other vital imports.

Despite current conditions, MITI at a mid-1974 conference estimated a gain of 15.1 percent in value of textile exports in the year 1974, with the largest gains in spun and filament manmade fiber yarn fabrics. The value of cotton fabrics was expected to gain 11.5 percent over 1973 levels but with inflation running about 25 percent between 1973 and 1974, the volume of goods involved will actually be less. In the longer term, Japan's level of exports of manmade fibers and products to developing countries will probably diminish as manmade fiber manufacturing facilities in those countries come on stream and meet a larger share of domestic and export requirements. While Japan may assume a lesser role in the world textile market, it can still be expected to have an important one in the years to come.

Imports by Japan of yarn, fabric, and apparel ranged between \$25 million to \$60 million prior to 1966, at which time they began to grow rapidly. In 1973, they reached the unprecedented total of \$1,715 million. The ratio of imports to consumption for textiles of all fibers, (consisting mostly of cotton textiles) was 0.5 percent in 1965, 9.3 percent in 1972, and increased to 16.0 percent in 1973. Imports were not expected to increase in 1974, but MITI expects that they will again reach 16.0 percent in 1978 and climb to 20 percent by 1982.

On a fiber basis, it is estimated that 1972 imports of cellulosic and noncellulosic fiber textiles were each about 4.0 percent of the domestic market for these products, while imports of natural fiber textiles, including both cotton and wool, were about 16.0 percent of the domestic market. In the first 6 months of 1974

imports of cotton textiles alone were 19 percent of the domestic market. The forecast for the entire year was about 17 percent with further declines expected in the immediate future. Imports of such magnitude obviously produce tremendous price pressures in the Japanese market for domestic producers, and some companies have not been able to survive the onslaught. Bankruptcies have begun to occur.

As of this writing, it is against Government policy to restrict imports. There are some who argue in support of continued liberal trade policies. They claim that the domestic textile industry cannot supply the expanded demand for textiles and that imports are needed to supply and give variety to consumer choices. Then, too, processors such as apparel makers are eager to buy materials at the lowest possible price. In mid-1974 pressures on the Japanese Government caused MITI to consider the creation of a council to maintain orderliness in the importation of textile goods, whose function may be to contain the rising tide of textile and apparel imports. Pressures for Government regulations of imports may temporarily subside since textile imports in 1974 dropped sharply with the exception of knitted outerwear, but are apt to resume as more normal economic conditions return.

An important factor in Japan's rising textile imports is the emergence of textile industries in developing countries whose manufacturers are becoming increasingly competitive and export oriented. In a recent period, about 80 percent of Japanese textile imports from less developed countries were made by wholly or partly owned subsidiaries of Japanese trading companies or native firms with tie-in arrangements with Japanese textile manufacturers. Not all imports represent a net loss to the Japanese textile industry. A typical trading pattern at present is the export from Japan of manmade fibers and manmade fiber yarns and the import of manufactured products; thus, while increasing imports, the Japanese are also increasing exports. However, developing countries often have their own sources of cotton so the import of cotton textiles from them by Japan constitutes a net import increase without commensurate input by the Japanese industry.

In addition to the direct import of textile commodities, Japanese producers have increasingly undertaken licensing arrangements for the production in Japan of well-known branded textile products and for processing techniques, such as special finishing. The licensing arrangements for brand name textiles are for products originally manufactured in the United States or Europe.

Many factors support this phenomenon of growing textile imports. At the urging of its trading partners,

primarily the United States, the Japanese Government opened its market to imports by gradual changes in trade policies. A number of restrictive practices had discouraged foreign suppliers of textiles and other products from selling in the Japanese market. Beginning in 1971, the exchange rate adjustments increased the value of the yen; and imports were pushed to the new highs of 1973 as a result of the profit potential arising from the difference in exchanged rates.

Generalized tariff preferences that Japan extended to the developing countries for a period of 10 years beginning August 1, 1971, provided their textile products certain tariff advantages. While the regular most favored nation (MFN) tariffs for fabric and apparel range between 7.5 percent and 30.0 percent ad valorem, these products from developing countries are permitted entry up to certain pre-established levels generally at one-half the MFN rates. Only silk fabrics are permitted duty-free entry. The ceiling for each product or group of products is calculated on the value of imports from beneficiaries in 1968 (the basic quota) plus 10 percent of the value of imports from sources other than beneficiaries in the 2 years before the year for which ceilings are being set (the supplementary quota). Tariff quotas are administered by MITI by commodity on a country by country basis. Imports beyond the amounts of the quotas are subject to regular MFN duties.

A wide variety of goods is imported from a large number of supplying countries, although these trade patterns are subject to change with changing conditions. Except for high-fashion high-quality goods which constitute less than 20 percent of total imports, Japan imports the cheaper range of textile products, such as sheeting and coarse shirting, and labor-intensive apparel. Large quantities of cotton yarn and fabric were imported from Pakistan in 1972 and 1973 mainly because of Pakistani Government subsidies and the devaluation of the rupee.

Textiles from Brazil are for the most part from Japanese companies established in Brazil. Apparel imports from the People's Republic of China are mainly basic lines, but of good quality. China can be expected to rise in importance as a textile supplier to Japan. Knit goods imported from the developing countries are staple goods; those from the developed countries, fashion goods.

Imports of textiles and apparel from the United States have risen sharply from \$7.5 million in 1968, to over \$51.0 million in 1972, and reached \$129 million in 1973. These are mainly fashion goods with brand identity, and many yards of denim for blue jeans. Denim imports from the United States will drop if more U.S.-type denim is produced in Japan under license from U.S. manufacturers.

Some observers expect cotton fabric imports in 1974 to be only half the 1973 level. The volume of other textile imports has also shown signs of temporary reductions because of overstocking by the trading companies. Quality problems with some imports, increased prices for imported textiles, and the weakening of the yen have also had a bearing on reduced imports. However, if prices in Japan continue to rise, the relative price advantage of imports would be an important factor to their continuation at high levels.

In the future, production from Japanese-sponsored manmade fiber companies in nearby countries will be added to the fiber supply available in those countries where they will be processed for export to Japan and other markets. Thus it can be expected that imports of textiles will change from being mainly cotton products to a larger proportion of manmade fiber textile products. It is also likely that higher quality items, competing more directly with Japanese-made products, will form a more important part of Japanese textile imports.

While the growth in textile imports has been rapid, the cooling of the Japanese economy caused an abrupt turnaround in textile imports in 1974. Given the supporting combination of circumstances, as indicated, it is expected that Japan will again become a net importer of textile products.

If cotton textile imports into Japan are from cotton-producing countries like Brazil, the People's Republic of China, and the Sudan, where a recently announced textile plant is to be built, rather than from countries like Korea and Taiwan whose cotton production is negligible or nonexistent, there will be no net addition to world raw cotton trade, since such countries will then ship cotton textiles rather than raw cotton. Such countries also have the potential to increase cotton production to meet any increased demand, although they must consider their growing populations' need for increased food production as well.

Government Policies

Since the Japanese textile industry has been and continues to be an important bulwark of the Japanese economy, its viability is afforded a certain measure of Government concern. Over time, Government programs have been designed to bring about more orderly production and marketing practices. As early as 1956, the industry was helped by the Government to cope with changing conditions, with respect both to its own structure and to its international competitiveness. This

early act dealt with surplus cotton spinning capacity and required registration of cotton spinning spindles to discourage their further installation. In October 1964, a new and stronger law prohibited any increase in the number of spindles for 4 years. The 1964 law idled about 2.2 million spindles, but permitted the installation of one new spindle for each two spindles scrapped. Government loans were available to small and medium-sized spinners to help meet the necessary capital investment costs.

As an outgrowth of an OECD Study,¹⁰ another law took effect in August 1967 which was designed to enable the industry to evolve into a capital intensive industry and to meet competition from low-wage countries. This required the mandatory scrapping (as opposed to the voluntary scrapping of the previous program) of old and surplus equipment and fostered the modernization of equipment as well as the vertical and horizontal integration of textile enterprises. A program for the knitting and dyeing industries was undertaken in April 1969, for the industries producing twist yarn, blankets, and apparel in 1970, and for the narrow fabric industry in 1971. All of these programs had the objective of modernizing equipment by providing loans at noncommercial rates and tax incentives to carry out this objective.

On May 29, 1974, the Diet (Japanese parliament) passed the law on "Provisional Measures for Structural Improvement of the Textile Industry," which replaced the "scrap and modernize" law of 1964. The new law is "defensive," that is, designed to strengthen domestic small and medium textile firms so as to help them to compete better with imports from the less developed countries. The law covers the entire industry—spinning, weaving, finishing, hosiery, garments, and distribution—related enterprises. An estimated 97 percent of all textile firms in Japan are in the small and medium enterprise category and as such are potential beneficiaries of the measure passed. The new law is scheduled to expire June 30, 1979.

The Japanese hope that this law will expedite structural reform and assist in a transition to what is termed a "knowledge intensive" industry. Further modernization to meet the severe labor shortage will be encouraged, although the Government will not finance modernization of large enterprises. Market research and the guidance of production to items preferred by consumers are also envisioned. Some Government funds

are available to assist workers in finding other employment when necessary.

A recent example of Government assistance to the textile industry is the late 1974 approval of a so-called recession cartel requested by spinners. Although not in exact accord with terms of the industry's request, the Government sanctioned a 2-month 40-percent yarn production curtailment. This cartel replaced the ineffective voluntary plan operated by the industry to deal with excessive stocks.

Another direct Government influence on the textile industry has been the enforcement of pollution-control regulations. Textile manufacturers are required to comply with strict rules for controlling water pollution—which affects dyeing, bleaching, finishing, carbonizing, and manmade fiber manufacture—and air pollution—which affects mainly boilers for heating systems and production of certain manmade fibers. Government grants in the form of loans to meet part of the cost of capital equipment and tax relief are provided to firms under the pollution control laws.

Government policies and regulations concerning trade indirectly affect the textile industry. Despite political pressures, the Japanese Government has indicated its intent not to revert to protectionism to deal with growing imports, claiming that import limitations would run counter to its free-trade posture. In fact, preferential tariffs for products from developing countries which were adopted in 1971 provide an incentive for the encouragement of textile imports. It is possible that in the absence of any Government assistance to deal with imports, "understandings" might be worked out by industry leaders with those in supplying countries. The Japanese Government accepted the GATT Arrangement Regarding International Trade in Textiles with the expectation that it would promote orderly marketing of world textile trade based on the nondiscriminatory principles of GATT.

The Japanese Government's continued willingness to support the Bank of Tokyo's request for Export-Import Bank loans for the purchase of cotton from the United States has also proven beneficial to the Japanese textile industry. These low-interest-rate loans have been available since 1948. The Export-Import Bank granted \$75 million at 7 percent interest for 1974-75 which permits Japanese spinning mills to pay around 9 percent for cotton purchase loans. Low-cost cotton purchase loans are important to cotton spinners, in view of the industry's dependence on borrowed capital and since buyers must pay for the cotton as soon as the U.S. exporter obtains a clean on-board bill of lading. Two to three months elapse while the buyers' money is tied up

¹⁰ "Modern Textile Industry, a Capital Industry," Organization for Economic Cooperation and Development (OECD), 1965, Paris.

before the cotton is in Japan and available for processing.

The Government's foreign relations policies also bear on the domestic textile situation. With the opening of relations with the People's Republic of China, China became the most important supplier of cotton fabrics to Japan in 1973. On the other hand, the break in diplomatic relations with Taiwan in late 1972, where considerable Japanese investment in textiles has taken place, did not disturb the trade, although it has deterred additional textile investment.

Through the services of JETRO and related institutions, the Japanese Government has for a number of years provided assistance to expand trade, including textile exports, and to expand production abroad by Japanese companies. More recently, the emphasis has shifted to the encouragement of imports. With the changed economic climate, beginning in late 1973, however, some reassessment of these activities will undoubtedly occur, and the outcome will again affect the fortunes of the textile industry.

By most measures, Japan is the most vulnerable of the industrialized economies since Japan is totally dependent on external sources for many essential commodities and dependent upon export markets for the sale of products representing about 10-11 percent of GNP. This was sharply brought home during the oil crisis of late 1973. Not only is 70 percent of Japan's energy based on oil, but Japan is virtually 100 percent dependent on imports for its oil supply. The "delicate interdependence of total world economy"¹¹ is recognized as a basic fact of Japan's foreign relations. The Japanese Government is sensitive to the role it must play to keep Japan's economic well-being in balance under difficult circumstances growing out of this vulnerability, and in this role the Government's policies and actions are of great importance to the textile industry.

In the early 1970's an estimated 20 percent of the cotton consumed by Japanese mills found its way to export markets. It may be impossible to maintain this ratio in the future. Japanese Government and textile industry leaders are aware of the great challenges facing them at this time, which neither can solve alone. As a consequence, there will likely be a continuation or expansion of Government-industry cooperation in the near future, which will be even-handed as it affects the competition between cotton, wool, and manmade fibers.

¹¹ From remarks by Japanese Foreign Minister Masayoshi Ohira to the Japan Society of New York, May 21, 1974.

Offshore Investments

The migration of Japanese textile capital to markets overseas is not a new development. Prior to World War II the textile industry was among the first major industries to operate facilities abroad. Big cotton spinning companies operated spinning mills in China and a few in Southeast Asian countries; these enterprises were undertaken mainly to supply local markets.

After World War II, textile companies were again among the first to move investment capital to foreign countries. Unlike some textile companies in other countries which send used or discarded machinery, Japanese companies investing overseas set up factories with the latest and best equipment. As of March 1973, the textile industry had invested more money overseas than any manufacturing industry other than mining. The trend to overseas investment is continuing, but the textile industry was exceeded by the chemical industry by the end of 1973.

Beginning in 1955, Japanese ventures for producing textiles were located mainly in Brazil and Nigeria and other African countries. By 1960 there were 20 such overseas plants, 9 of which were in textile mill production, 5 in the knitting industry, and 6 in industries producing other textile products, not including man-made fibers.

The first manmade fiber production facilities financed by Japanese capital were established overseas in 1964. Prior to that time, manmade fiber companies confined their overseas activities to processing fibers shipped from Japan.

To date, there has been no comparable development in cotton production in foreign countries. Some efforts in Brazil were announced some time ago but have yet to make significant progress. The Japanese have been approached regarding their interest in cotton production in several countries, particularly Ethiopia, Indonesia, and Australia. The purchase of farmland and a cotton gin in the San Joaquin Valley of California may indicate interest in production of cotton in the United States, or perhaps just good investment opportunities, or both.

In recent years, the trend to foreign investment has accelerated, spurred by almost complete removal of Japanese Government restraints on foreign investment in 1971. In addition, at that time, there was a surplus of capital to invest and better investment opportunities abroad.

In 1972, 67 new projects were established and in the first 3 months of 1973, 19 new ones, bringing the total of such overseas ventures in the textile industries to 299 by the end of the first 3 months of 1973, according to MITI. Over one-third of these were firms manufacturing textile mill products and slightly less than one-third were producing knit goods. Of the almost 300 enterprises, 221 are located in the nearby countries of Southeast Asia. As of January 1974, 49 additional textile projects were reported to be in the planning stage.

The trend to investment in foreign countries has been undertaken as an extension of the basic Japanese Government policy of economic cooperation with foreign countries. In the case of textile and related industries, these foreign investments have been accomplished solely by private enterprise with Government encouragement, although the Government has assisted with the financing of some other industries, such as ship building and steel production.

There are a multitude of complex reasons why this trend has now accelerated in the textile and related industries. Pursuing their policies to attract foreign capital, other National Governments have encouraged Japanese investment with incentives of various kinds, such as the exemption from taxation of imported raw materials and exemption for a fixed period from corporate taxation. On the other hand, there was the surplus of investment capital in Japan.

It has been considerably more profitable for Japanese firms, especially in recent years, to produce abroad in view of the lower costs for labor and most other inputs. According to JETRO, 70 textile firms with overseas investments registered an average 10.3 percent profit-to-sales ratio on overseas investments compared to a 5.6 percent profit-to-sales ratio on domestic enterprises. Besides the difference in labor costs and availability in Japan and the other countries, prices of factory sites in Japan have soared. With rising prices for all inputs, textile production costs in Japan have risen sharply and compare unfavorably with many other nearby Asian countries. For some textile items, production costs in Korea, for example, have been as low as one-fourth to one-fifth those of Japan.

Many other factors contributed to Japan's interest in textile expansion in foreign countries. A number of years ago U.S. import curbs on Japanese textile exports to the United States prompted advances into textile production in countries that were not subject to quotas. Furthermore, the Japanese have looked upon production in foreign countries as a means of protecting their markets for textile products in those countries when rising nationalism threatened market access. In this way,

they could retain markets already serviced by Japanese firms, as well as provide a source of exports to Japan and third markets. To date practically all textile investment abroad has been in developing countries, and exports from these countries to many developed countries benefited from preferential tariff, thereby gaining considerable advantage over exports from Japan itself.

In addition, the severe pollution problems on the Japanese islands have brought about strict Government regulations and have created an adverse climate of public opinion that has resulted in more and more management decisions to expand production facilities elsewhere. For example, the Industrial Structure Council of Japan estimates a doubling of Japanese ethylene demand by 1985 and a large expansion of demand in other Asian countries. Ethylene is a basic ingredient for the production of polyester fiber. In 1973, an explosion in a Japanese ethylene plant caused a public outcry. Even though land could be found to build additional capacity for ethylene production in Japan, the Council believes that environmental factors probably preclude such expansion. To date, pollution has not generally been a problem in the countries to which Japanese industries have been moving, or if pollution is recognized as a problem by the host countries, it has been overshadowed by the desire for the advantages of industrial development.

One important aspect of Japanese investment abroad is the effort to move production plants near the source of raw materials—for example, cotton textile production in Brazil, the Sudan, and the United States where there is an abundance of cotton; petrochemical and manmade fiber production in Taiwan and Korea where there are petrochemical industries. The planned enterprise in the Sudan will be a vertically integrated operation including spinning, weaving, dyeing, and finishing of cotton fabrics.

In the early stages of manmade fiber production abroad, the Japanese provide the chemical intermediates such as DMT for polyester, caprolactum for nylon, and acrylonitrile for acrylics to their Japanese related firms, if such intermediates are not available locally. Unit costs of production of manmade fiber in these developing countries are higher than in Japan because the producing units are smaller. However, the local industries are generally protected from competitive imports and are given certain tax advantages.

Beginning in August 1971, foreign exchange relationships further encouraged multinationalization and Japanese enterprises switched their strategies from exporting commodities to advancing their capital investments abroad. The enlargement of the European Community

also stimulated interest in investing in Europe. The Middle East is considered virgin territory for investments, a view that strengthened after oil-related developments in 1973 and 1974. According to JETRO, "Japan enterprises are now utilizing overseas investments as a main ingredient in their business strategies".¹²

Although yen appreciation beginning in August 1971 was a spur to foreign investment, a number of other factors have entered the picture since that time. Owing to the much greater import cost of oil beginning late in 1973, Japan has suffered a sharply declining foreign exchange balance. Japanese Government policy sought to restrain the outflow of Japanese capital and, as of early 1974, it became more difficult to obtain Government approval for the investment of Japanese capital in service and other nonmanufacturing enterprises in foreign countries.

There have been some strong reactions on the part of some host countries against Japanese economic influence. Japanese interests have been prevented from further new investment in textile production in Thailand, although expansion of existing facilities is still permitted. In May 1973, Korea shut the door to Japanese investment in the textile industry, while still welcoming joint ventures with Japanese companies in the production of manmade fibers.

Under Government guidance, business interests are reevaluating their image abroad and making adjustments where it seems advisable. As a result of problems in this area, MITI has recommended that overseas investments be joint ventures, with Japanese ownership not to

exceed 75 percent, and that executive positions in such companies be on a 50-50 basis for local personnel.

In textiles and related industries, these foreign investments have generally been joint ventures with local capital in which the Japanese do not own controlling interest. The major exception is Brazil where four of the Japanese Big Nine have fully owned a controlling interest in cotton or wool spinning operations. While these undertakings, for the most part, were sponsored by operating firms or groups of such firms, Japanese trading companies have recently begun to enter the financing and distribution related to joint ventures abroad.

By March 1972, \$416 million had been invested or loans had been approved in the textile and manmade fiber industries overseas by the Japanese. In addition to direct investment, the Japanese have entered into contracts for the export of technical know-how to aid textile industries in other countries.

In view of the changed Japanese balance of foreign exchange and the reduced value of the yen, the trend to foreign investments for cotton, textile, and manmade fiber production can be expected to moderate for the next few years. A noted futurologist, Herman Kahn, believes, however, that beginning in the 1980's overseas capital advancement will become the prime mover for the development of the Japanese economy, a point of view that is shared by some top management officials in Japan. It is possible that in the future many Japanese textile companies and those in related businesses, as well as trading companies, will rely more on selling technology, patents, and industrial plants in countries overseas than they have in the past. They will likely play an increasingly important role in the development of textile industries in countries that are in the early stages of moving toward industrialization. The Japanese textile

¹² "Japan into the Multinational Era," Japan External Trade Organization, 1973.

Table 12.—OVERSEAS EXPANSION OF JAPANESE TEXTILE INDUSTRY, 1953-60 AND 1961-73

[Number of firms]

| Industry | 1953 to 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 ¹ Jan-Mar | Total |
|----------------------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------|-------|
| Manmade fiber producing. | -- | -- | -- | -- | 1 | 1 | 1 | 2 | 2 | 3 | 3 | -- | 3 | 3 | 19 |
| Textile mill products | 9 | 4 | 5 | 7 | 4 | 4 | 6 | 5 | 7 | 10 | 11 | 3 | 31 | 5 | 111 |
| Knitting | 5 | -- | 1 | 2 | 5 | 5 | -- | 4 | 13 | 12 | 15 | 5 | 22 | 5 | 94 |
| Dyeing | -- | -- | -- | 2 | 4 | -- | 1 | -- | 1 | 1 | 3 | 1 | 7 | 2 | 22 |
| Other textile products | 5 | 2 | 6 | 2 | 4 | 1 | 5 | 2 | 5 | 2 | 6 | 3 | 6 | 4 | 53 |
| Total | 19 | 6 | 12 | 13 | 18 | 11 | 13 | 13 | 28 | 28 | 38 | 12 | 69 | 19 | 299 |

Source: Ministry of International Trade and Industry.

Table 13.—OVERSEAS INVESTMENT OF JAPANESE TEXTILE INDUSTRY BY AREA, 1953-60 AND 1961-73

[Number of firms]

| Area | Manmade fiber industry | Textile mill products industry | Knitting industry | Dyeing industry | Other textile products industries | Total |
|-----------------------------------|------------------------|--------------------------------|-------------------|-----------------|-----------------------------------|-------|
| North America | 0 | 1 | 2 | 1 | 0 | 4 |
| Central & South America | 4 | 23 | 3 | 2 | 3 | 35 |
| South-East Asia | 15 | 73 | 81 | 14 | 38 | 221 |
| Africa | 0 | 7 | 5 | 5 | 10 | 27 |
| Europe | 0 | 3 | 2 | 0 | 2 | 7 |
| Oceania | 0 | 4 | 1 | 0 | 0 | 5 |
| Total | 19 | 111 | 94 | 22 | 53 | 299 |

Source: Ministry of International Trade and Industry.

industry has already been reorganized on the basis of this understanding.

The push to multinationalization is closely related to the complete liberalization of trade and capital in Japan. The economic climate of mid-1974 is likely to slow foreign investment by the textile industry in the immediate future in the light of Japanese Government policy to discourage foreign investment and owing to the decline in yen value. However, it is also likely that in the longer term, textile investment money will go largely to foreign countries, thus precipitating an even greater slowdown in investment in Japan itself. Capital expenditures by the textile industry in Japan will probably be limited to modernization and improvement of existing facilities with emphasis on technology, and in some circumstances, diversification into other lines of business.

The continued expansion of Japanese foreign investment in the textile industries will limit the growth of the raw cotton market in Japan. If such investments are in cotton-producing countries, additional cotton production could be encouraged, although such expansion might be severely limited by the urgent need for food production in these developing countries.

Outlook for Cotton

In view of the many changes that have already taken place and that are in process in the Japanese textile industry, what is the possible near-term impact on cotton consumption in and imports of raw cotton into Japan?

The textile recession and general economic slowdown in Japan and elsewhere cloud the outlook in early 1975. Barring unforeseen events, knowledgeable sources in Japan predict the end of the current textile recession by late 1975 by which time inventories throughout the distributive chain should be worked off.

Although the present textile recession, compounded by a general economic adjustment in Japan and elsewhere, has caused temporary setbacks in the growth of the economy and the textile market in Japan there is no reason to believe that the long-term upward trend in fiber consumption will not be resumed. In the longer term, by the early 1980's, it appears entirely possible that per capita fiber consumption in Japan will range between 41.3 to 44.8 pounds per person. The lower figure is an extension of the growth in fiber consumption that occurred in the last decade. The higher figure is based on a Ministry of International Trade and Industry (MITI) estimate that fiber consumption will more than double by 1978 over the levels of 1960-64. In the period 1960-64 per capita consumption averaged 24.3 pounds per person and grew to an average of 31.8 pounds per person in 1970-72, an increase of more than 30 percent. Per capita availability for 1973 totaled 41.3 pounds, but this includes considerable inventory.

Based on a continuation of the 1.2-percent annual population growth, the market in Japan for all fibers will be between 4.9 billion to almost 5.4 billion pounds by the early 1980's, depending on the rapidity with which fiber consumption grows and the level that it reaches.

Of this total fiber market, how much will be cotton?

While it is true that cotton's share of the fiber market has dropped from an average of 47.4 percent in 1960-64 to 42.2 percent in 1965-69, it remained at 42.2 percent

in 1970-72, and showed a strong upward swing in the last of those years. The 1973 ratio was 42.9 percent. The large increases in availability of cotton in 1972 and 1973 were undoubtedly related to stock building, as well as to increased consumption.

Therefore, a more conservative estimate of cotton's share of the actual domestic market would be obtained from utilizing the 1969-71 average of 40.2 percent of the fiber market, which would in effect eliminate the large increases in stocks for which adjustments are not made in the computation of FAO figures on per capita consumption.

In view of the unusualness of the stock building in 1972 and 1973, 1969-71 data have been used to estimate the lower range of cotton consumption in the next decade. If cotton did no more than hold the 40.2 percent share it attained in 1969-71, a domestic market for 4.13 million bales of cotton would exist in Japan based on 41.3 pounds of all fibers per capita consumption.

On the other hand, the peak of the popularity of manmade textiles may have been reached. There have been substantial shifts between cotton and manmade fibers in the past, and it is likely that this can happen again. If so, and if the recent trend to natural fibers, especially cotton, could continue into the early 1980's an even larger expansion of the domestic cotton market in Japan would ensue. A market of 4.7 million bales would exist based on 44.8 pounds per capita consumption of fiber and the share of cotton to total fiber available in the domestic market in the 1970-72 period.

Imports have supplied a growing proportion of the domestic market since the early 1970's, and are thought to have supplied about 15 to 20 percent in 1973, a most unusual year. MITI estimates that by 1982, 16 percent of the domestic cotton textile market will be supplied by imports, and if these projections are correct, the domestic market for raw cotton in Japan would be reduced by this amount.

On the other hand, exports have been an important though shrinking outlet for Japanese-made textile products. Again, MITI has estimated that exports of all textile products will amount to about 18 percent of mill consumption of 1978; this compares with 23 percent in 1969, and 22 percent in 1971.

A study on textiles by the General Agreement on Tariffs and Trade (GATT)¹³ shows that exports of

cotton fabric (alone) were 35.4 percent of production in 1960, 27.3 percent in 1965, and only 13.1 percent of production in 1970. According to data for 1973, it appears that this ratio dropped even further—to just over 10 percent.

Although data are not available, exports of made-up cotton items should be taken into account in determining the real importance of exports to the textile industry. For the purpose of this study, it is assumed that exports will be 10 percent of mill consumption of cotton by the early 1980's.

While Japan may attain a lesser share of world exports of cotton and other textiles, it will continue to have an important place in such trade in the future, especially in view of the increased necessity to earn foreign exchange to pay for oil imports. When foreign trade is taken into account, it would appear that the import market for raw cotton would range from 3.7 million to 4.4 million bales.

Then the question becomes, how much of this important market can be served by U.S. cotton?

In the past, U.S. cotton has supplied 20 to 30 percent of Japan's total raw cotton imports. In the crop year 1973-74, U.S. cotton was 35 percent of total imports. It is possible to foresee a market in the range of 900,000 bales—based on the lower import need of Japan and a 25-percent U.S. share of total cotton imports—to 1.3 million bales—based on the higher import need and the maintenance of a 30-percent share. It is likely that neither extreme will grow from the levels of the recent years allowing for the fact that the 1973-74 crop year was unusual. A market of at least 1.1 million bales should not be difficult to attain or retain by the early 1980's.

U.S. cotton has a number of factors in its favor in the Japanese market, not the least of which are Export-Import Bank credit and the business ties of long standing between U.S. cotton merchants and Japanese trading companies. If U.S. growers are able to provide a sufficient supply of wanted grades and staples, and remain price competitive with cotton from other countries, they should be able to look forward to sharing fully the market in Japan for raw cotton.

This growth will not be without severe competition from manmade fibers. In this connection, the efforts of cotton-interest groups in promoting cotton, and particularly U.S. cotton, in the Japanese market should prove fruitful as the Japanese economy resumes its pattern of growth and expansion.

¹³ See footnote 1.

